



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 EXV 18.0006X

Issue No: 0

Certificate history:

[Issue No. 0 \(2018-03-23\)](#)

Status: **Current**

Page 1 of 5

Date of Issue: **2018-03-23**

Applicant: **EGS PTE LTD**

Bock 4008, Ano Mo Kio Avenue 10, #01-11/12, Techplace 1, Singapore 5696 Singapore
Singapore

Equipment: **AGLCS Range of GRP Control Stations**

Optional accessory:

Type of Protection: **See the marking details below**

Marking:

Ex eb * IIC T** Gb Ta ***

Ex tb IIIC T80/T95°C Db IP66

* The coding is dependent on the individual coding of the 'Feedthrough' components installed.

** Temperature classification T5 or T6 depending upon power dissipation indicated in the table below or stated temperature classification of the 'Feedthrough' components if present.

*** Ta -35°C to +40°C or +55°C depending upon power dissipation indicated in the table below and the ambient temperature range of the 'Feedthrough' components.

*Approved for issue on behalf of the IECEx
Certification Body:*

S L Clarke

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:

ExVeritas Limited
Units 16-18 Abenbury Way
Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx EXV 18.0006X Issue No: 0
Date of Issue: 2018-03-23 Page 2 of 5
Manufacturer: **EGS PTE LTD**
Bock 4008, Ano Mo Kio Avenue 10, #01-11/12, Techplace 1, Singapore 5696 Singapore
Singapore

Additional Manufacturing location(s):

Emerson Hazardous Electrical Equipment (Shanghai) Co. Ltd.

Zone A, 1st Floor, Building 5, No.758 RongLe Dong Road, SongJiang, Shanghai 201613,
China

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 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/EXV/ExTR18.0008/00](#)

Quality Assessment Report:

[GB/EXV/QAR17.0022/00](#)

[NO/PRE/QAR15.0034/00](#)



IECEX Certificate of Conformity

Certificate No: IECEx EXV 18.0006X

Issue No: 0

Date of Issue: 2018-03-23

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The enclosures are made of Fiberglass Reinforced Polyester (GRP), cover screws are stainless steel.

There is a set of M6,M8 or M10 earth stud assembly for grounding on one side of the device. Depending on the specification and number of components, various enclosure types and sizes are available. The 'Feedthrough' components include pushbuttons, illuminated push buttons, selector switches, control and load break switches and LED pilot lights.

All enclosures, terminals and 'Feedthroughs' are covered by their own component certificates. The permitted enclosures, terminals and feedthroughs types are listed on the certification documents. The enclosures have maximum dissipated wattage for a 40K and a 25K rise and is as follows:

Item	Catalogue Number	Dimension(mm)			Maximum Power (W)	
		H	W	D	(@40K) T6 at Tamb +40°C T5 at Tamb +55°C	(@25K) T6 at 55°C
1	AGE070805	77	82	56	3.07	2.18
2	AGE071105	77	112	56	3.76	2.68
3	AGE071605	77	162	56	4.91	3.50
4	AGE072305	77	232	56	6.52	4.64
5	AGE122209	122	220	90	11.14	7.93
6	AGE162609	160	260	90	13.55	9.65
7	AGE163609	160	360	90	17.25	12.29
8	AGE141110	139	110	100	8.32	5.93
9	AGE131308	130	130	86	7.65	5.45
10	AGE221312	220	130	120	13.63	9.71
11	AGE261812	260	180	120	17.41	12.40
12	AGE362212	360	220	120	22.67	16.15
13	AGE362217	360	220	170	32.11	22.88
14	AGE363612	360	360	120	29.57	21.06
15	AGE363617	360	360	170	41.89	29.84
16	AGE453316	450	330	160	41.40	29.49



IECEX Certificate of Conformity

Certificate No: IECEx EXV 18.0006X

Issue No: 0

Date of Issue: **2018-03-23**

Page 4 of 5

17	AGE453324	450	330	240	62.09	44.23
18	AGE524022	520	400	220	67.46	48.06
19	AGE524030	520	400	300	91.99	65.53
20	AGE724216	720	420	160	59.14	42.13
21	AGE724240	720	420	240	88.70	63.19
22	AGE080705	82	77	56	3.03	2.16
23	AGE110705	112	77	56	3.49	2.48
24	AGE160705	162	77	56	4.25	3.03
25	AGE230705	232	77	56	5.33	3.80
26	AGE221209	220	122	90	9.93	7.07
27	AGE261609	260	160	90	12.32	8.78
28	AGE361609	360	160	90	14.78	10.53
29	AGE111410	110	139	100	8.72	6.21
30	AGE132212	130	220	120	15.11	10.77
31	AGE182612	180	260	120	18.73	13.34
32	AGE223612	220	360	120	24.97	17.79
33	AGE223617	220	360	170	35.37	25.20
34	AGE334516	330	450	160	44.02	31.36
35	AGE334524	330	450	240	66.04	47.04
36	AGE405222	400	520	220	71.07	50.63
37	AGE405230	400	520	300	96.92	69.04
38	AGE427216	420	720	160	65.71	46.81
39	AGE427240	420	720	240	98.56	70.21

The maximum number of 'Terminals' and or 'Feedthrough' components that may be fitted into each enclosure is calculated using the following formula: $Power (W) = I^2 \times N (R_t + R_c) + F$

Note: Maximum allowable Power (W) is detailed in the table above for a given temperature class and ambient.



IECEX Certificate of Conformity

Certificate No: IECEx EXV 18.0006X

Issue No: 0

Date of Issue: 2018-03-23

Page 5 of 5

Where:

I = The current through the conductor up to the maximum percentage current for each terminal type 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.

F = Resistance of 'Feedthrough' components or maximum power rating of feedthrough components.

SPECIFIC CONDITIONS OF USE: 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 shall 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 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. Suitably approved 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 control stations marked T6 when the ambient temperature is above 30°C (cable rating >70°C), or when marked T5 when the ambient temperature is above 15°C (cable rating >70°C).
10. All 'Feedthrough' components shall be suitable for the ambient range of: -35°C to +40°C or +55°C see table above.
11. The 'Feedthrough' components 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.
12. Any conditions of use stated on the component certificates for the 'Feedthrough' components shall be applied.
13. The maximum voltage, current and power ratings of the 'Feedthrough' components shall not be exceeded.
14. The 'Feedthrough' components shall maintain the IP rating of the control station enclosure.

Annex:

[Certification Drawings for GRP LCS_EGS809004_20180326.pdf](#)