cml Ex certification management limited

Ex Equipment Certification Guide for Japan

Table of Contents

Intro 3

1. Ex certification scheme in Japan 4

2. Documentation and test samples for certification 4

3. Certification costs 5

4. Changes to existing certification 5

5. Renewal of certification 5

6. Certification label 5

7. FAQ 6

Annex A Definition of model variants 8

Intro

Until now, the only certification body that could issue certificates that are accepted in Japan was the Technology Institute for Industrial Safety (TIIS). CML has successfully operated under an agreement with TIIS that enabled CML's own test data to be accepted by TIIS for certification. Due to new regulations, this agreement and all other TIIS agreements come to an end on 31st March 2017. Following this change to the Japanese Industrial Health and Safety regulations, and a rigorous application and review process by MHLW, CML is now the sole overseas recognised body under the new regulations. We can offer Ex certification valid in Japan, without the need for further certification or review by local government agencies or certification bodies.

Due to regional differences in certification methods, the laws in Japan, translation requirements and the time zone difference, many companies have found the Japanese certification process time-consuming and complex and have excluded Japan from their export marketing plans. Some companies may be unfamiliar with the requirements written into the law, when compared with the IECEx System, ATEX, or North American requirements. In the past, this process could often take several years, be a significant burden to administer, and cost much more than originally budgeted.

厚生労働省発基安 0207 第2号
平 成 29 年 2 月 7 日

Certification Management Limited
Mike Shearman 殿

厚生労働大臣 塩崎 恭久

労働安全衛生法（昭和47年法律第57号）第54条の2において準用する労働安全衛生法第46条第1項の規定により、貴社を外国登録型式検定機関として下記のとおり登録を行ったので通知する。

記

登録番号	1
登録年月日	平成29年2月7日
名称及び住所	名称：Certification Management Limited（サーティフィケーション・マネジメント・リミテッド） 住所：Unit1, Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ United Kingdom（ユニット1、ニューポートビジネスパーク、ニューポートロード、エレスメアポート CH65 4LZ 英国）
代表者の氏名	Managing Director Mike Shearman（代表取締役 マイク シェアマン）
事務所の名称及び所在地	Unit1, Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ United Kingdom（ユニット1、ニューポートビジネスパーク、ニューポートロード、エレスメアポート CH65 4LZ 英国）
登録区分	防爆構造電気機械器具
有効期間	平成29年2月7日から平成34年2月6日

〈Translation〉

Ministry of Health, Labour and Welfare notification 0207 No. 2
7 February 2017

Mr Mike Shearman
Managing Director
Certification Management Limited

Minister for Health、Labour and Welfare
Yasuhisa Shiozaki

Here I notify that, according to paragraph 1 of Article 46 of Industrial Safety and Health Act (Cabinet Order No. 318 of August 19, 1972) which is applied mutatis mutandis pursuant to paragraph 2 of Article 54 of Industrial Safety and Health Act, above-mentioned company is registered as a Registered Type Examination Agency as shown below.

Registration No.	1
Registered date	7 February 2017
Name & address	名称：Certification Management Limited（サーティフィケーション・マネジメント・リミテッド） 住所：Unit1, Newport Business Park, New Port Road Ellesmere Port CH65 4LZ United Kingdom（ユニット 1、ニューポートビジネスパーク、ニューポートロード、エレスメアポート CH65 4LZ 英国）
Name of representative	Managing Director Mike Shearman（代表取締役 マイク シェアマン）
Name and address of office	Unit1, Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ United Kingdom（ユニット 1、ニューポートビジネスパーク、ニューポートロード、エレスメアポート CH65 4LZ 英国）
Registered category	Explosion-protected electric apparatus
Validated period	From 7 February 2017 to 6 February 2022

The CML approach to customer service and rigorous certification method helps keep documentation in a single file, enabling you to track and maintain the certification much more easily. An English language version of the certificate will also be provided for an easy reference.

Those clients who are used to Japanese certification, will be aware that a change to the product design would result in re testing and a new certificate being issued. CML maintain a record of the existing test information and only require additional tests that are necessary because of the changes made. The existing certificates are amended and issued.

With CML as the first foreign recognised inspection body, we can provide a bridge to Japan, help you through the requirements and explain the differences.

The certification requirements are detailed in Japanese law in a way that is different to the broad principles of EU directives. The specification of a product which can be considered a different type, because it must undergo specific tests, would result in the product type appearing on a different certificate. Different temperature class, apparatus group (gas group) and protection codes are also separated into different certificates. Since many clients have a product which may be configured differently depending on end user requirements, this can lead to the issue of many different certificates.

This guide is to help you through the certification process and ensure that you get your Ex products certified quickly and cost effectively. Please contact us for any questions you may have. We also offer you a free technical call.

eMail: sales@cmlex.com
UK Phone: +44 151 559 1160

1. Ex certification scheme in Japan

The current Industrial Health and Safety Law in Japan requires Group II explosion-protected electrical equipment to be certified by a recognised testing and inspection body. CML is permitted by the Ministry of Health Labour and Welfare to issue these certificates.

The certificate has a specific format and wording, and additional requirements must be met, therefore only CML certificates with the JPN identifier are accepted in Japan.

The Japanese regulations require different certificates are issued for each combination of type, apparatus group, temperature class and Ex coding.

This is in contrast to the single certificate for a product range that is commonly issued under the ATEX or IECEx schemes. Refer to the CML Registered Type-examination Agency Service Rules: www.cmlex.com/japan-service-rules

Certificates expire after three years from the date of issue. There are no production audit requirements.

2. Documentation and test samples for certification

Requirements for new and renewal applications:

(1) Completed CML JPN Quote request form in English: www.cmlex.com/application.docx
(2) Structural, construction and general arrangement drawings of the equipment to be certified, as well as circuit diagrams where applicable. These documents need not be in English, but translation of notes may be required.
(3) Description of the intended use, performance, operation of the equipment.
(4) Documents including the following items:
    a) Outline of the manufacturing equipment, processes, technology and methods used for manufacturing and inspecting the equipment to be certified.
    b) Name and position of responsible person(s) for quality control of production of the equipment to be certified
    c) Standards for the manufacturers inspection of the equipment to be certified.
(5) Supporting documents and reports to demonstrate compliance, also any relevant testing results reports and certification.
(6) Instructions (copy in English for application and Japanese before final certification)

It is also essential to submit a draft outline of the ‘variants’ of the product design. See Certification costs in the next section.

3. Certification costs

Costs depend on the number of certificates issued for each product variant. A variant is a product that is defined on a single certificate, where any optional features and differences do not affect the product testing. A new certificate is required for any change or product “Element” or “Classification”. See Annex A Definition of Model Variants and refer to the CML Registered Type Examination Agency Service Rules.
www.cmlex.com/japan-service-rules

4. Changes to existing certification

Commonly referred to as certificate updates or variation. The shorter quote request form will be available soon, however the application should include all the items as for a new application that are relevant to the change in design. In particular a set of drawings with changes highlighted that show the differences between the existing and proposed drawings.

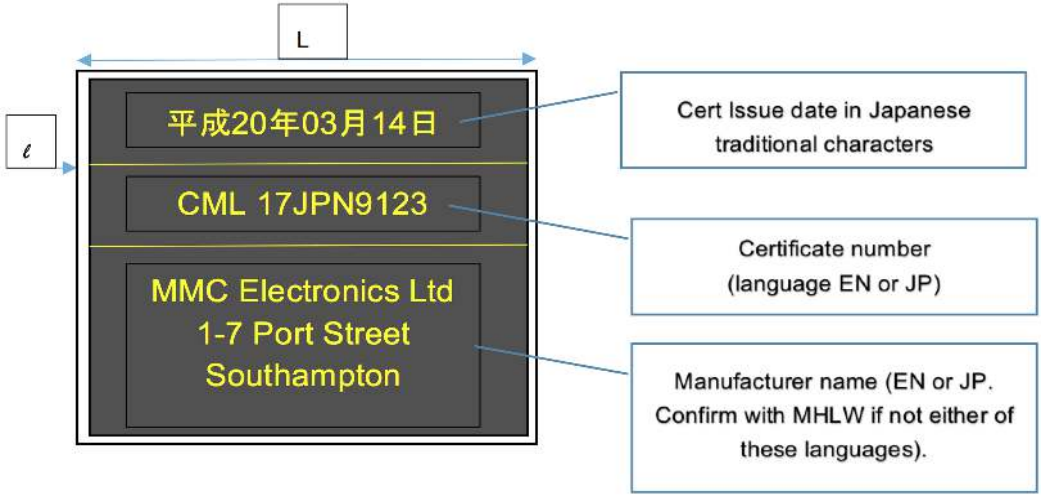
5. Renewal of certification

Renewal of existing certificates about to expire will be priced according to a separate schedule of charges, provided there are no changes in the design and standards, or best practice, haven’t moved on. The documentation required is a completed application form and a copy of the certificate to be renewed.

6. Certification label

The product label is marked according to the opposite diagram and is fixed by the manufacturer to the completed product assembly.

Label to be manufactured from stainless steel or other durable material, filled black to the border, with yellow/pale yellow lettering.



Label dimensions	
L (cm)	ℓ (cm)
1.3	0.1
2.0	0.1
3.2	0.2
5.0	0.2

7. FAQ:

1. Are there any other regulatory requirements for my product?

No mandatory regulation exists but products that already comply with EMC or FCC requirements may be able comply with voluntary VCCI marking for emissions only.

Electrical safety is regulated by the Electrical appliance and materials safety act (PSE mark). Generally, Ex certified products are exempt from this regulation.

There may be additional requirements for machinery with moving parts regulated by the Industrial Safety and Health Act.

Product specific requirements can be established upon application from Ex certification

2. Can I use an IECEx ExTR?

Yes, although older ExTR's may require some additional work to ensure the product complies with the requirements in Japan, which are one edition behind the IEC standards. The ExTR is subject to review and acceptance through CML.
Other test reports are not accepted.

3. Will you issue a CML certificate?

Yes, CML are responsible for the complete process from quotation, through to issue of the certificate. No other approval agency is involved.

4. How do I know a CML certificate will be accepted by my customer?

CML have already issued over 40 informal certificates (acceptable in Japan under certain circumstances) which enabled the client to complete a valuable export order. A copy of our registration notification is available for download on our website.
www.cmlex.com/japan-registration

5. What protection methods are covered?

Flameproof Ex d, Purged and pressurised Ex p, Oil immersion Ex o, Increased safety Ex e, Intrinsically safe Ex ia, ib, Ex e, Ex m, Type n, Dust protection Ex t, Special protection Ex s (Not IEC Ex s). Group II only, Mining products are not required to be certified.

6. Is there a quality audit requirement?

There is no factory audit, but certificates are only valid for three years and are only renewed following application and a CML review.

7. What documents would we need to send you?

We will provide a list of documents required in the formal quotation. Technical documents detailing the product will be required, along with any supporting documents such as data sheets. A label detail for the certified product according to the design specified under Japanese law.

You must also provide basic details of the quality control of the

manufacturing system and a specification data sheet of the equipment. Refer to the further details in our guide.

8. My equipment has a bought in component, is this a problem?

Provided a component has been or will be fully tested as part of the submitted design then there will be no issue. If the component parts have been bought with a separate IECEx approval, then the ExTR for the component is required, along with the technical documentation etc. if you cannot obtain the ExTR, CML will require a CML Registered Component Certificate from the component manufacturer.

If the component has not been previously tested, it may be expedient for the component supplier to obtain a CML Registered Component certificate. These registered component certificates are not valid in Japan but enable CML to verify and confirm data used in their Japanese equipment certificates.

There are no officially recognised component certificates for Japan that would allow components to be placed on the market in their own right.

9. Do we have to translate documentation?

The certificate will be translated by CML and you will also receive a version in English for reference. The instructions for the end user will also need to be translated. CML can offer a service to do this for you. Other documents do not normally require translation. We may ask for some text on technical documents to be translated into English.

10. I already have an IECEx certificate, will additional testing be involved?

Additional testing will only be needed if it is necessary to confirm compliance with the current editions of the Japanese standards.

11. I have an existing TIIS certificate, can I transfer or update that with CML?

We would have to issue a new certificate using previous test data that must be available and acceptable to CML.

12. How much does certification cost?

Cost is calculated based on the number of certificates required, protection method etc. The Japanese regulations require that we issue separate certificates for different recognisable types of equipment, apparatus group, protection method and temperature class. The cost can be calculated by CML when an application is made.

Annex A Definition of model variants

The following table is an extract from MHLW circular notice No 80 and No 1005-3 and shows that certificates are issued according to the type of product (Item 1 – Kind) followed by variations in product configuration (Items 2 – 7).

Therefore, a single product with no optional configurations and only one Ex code, would require one certificate to be issued. If there are optional configurations with different Ex codes for example, then the number of certificates increases.

If the optional configuration does not affect any of the items listed in the table, then it can be accommodated without an additional certificate being issued.

For example: A 3300 V flame proof motor with terminal boxes

1. Motor	1 certificate
2. Type of protection Ex d	x1
3. Type of protection of terminal box - Ex e or Ex d options	x2
4. Rated voltage 3300 V	x1
5. Apparatus group IIB	x1
6. Temperature class T4	x1
7. Conductor lead in method – bushing and gland option	x2
Number of certificates	4

Element	Classification
(1) Kind (type of equipment)	a. 3-phase induction motor b. 1-phase induction motor c. Synchronous motor d. DC motor e. oil-immersed transformer f. non-oil-immersed (dry) transformer g. Instrument transformer h. air break switch i. air circuit-breaker j. control panel k. distribution panel l. electromagnet for solenoid valve m. thermometer n. pressure gauge o. flow meter p. recorder q. incandescent lamp r. fluorescent lamp s. high-pressure mercury lamp t. high pressure sodium lighting u. LED lamp v. communicator w. warning device x. signalling device y. plug connector

Element	Classification
(2) Method of protection	a. flameproof b. pressurized c. increased safety d. oil immersion e. intrinsic safety ia f. intrinsic safety ib g. encapsulation ma h. encapsulation mb i. type of protection 'n' j. special type of protection k. general type of protection for combustible dust l. special type of protection for combustible dust
(3) Type of protection of terminal box (located in the equipment)	a. flameproof b. pressurized c. increased safety d. general type of protection for combustible dust e. special type of protection for combustible dust
(4) Rated voltage	a. Low voltage <3000V b. High voltage (3000 V class) c. High voltage (6000 V class) d. Special high voltage >6000V

Element	Classification
(5)-2: Apparatus group. For the equipment constructed in accordance with international standards	a. II A b. II B c. II C
(6)-2: Temperature class for the equipment constructed acc.to international standards	a. T1 b. T2 c. T3 d. T4 e. T5 f. T6
(7) Conductor lead-in method from terminal box to main body (type of cable gland)	a. flameproof stud b. flameproof packing c. flameproof fixing d. stud e. packing f. bushing g. fixing

Certification Management Limited (CML) was established in June 2013 in the UK, offering a complete range of compliance services. CML is registered as an EU Notified Body (No 2503) for ATEX EU/2014/34. This is supported by the UKAS accreditation (No 8175) to IEC 17025 and IEC 17065.

The full scope of accreditation allows for the issuing of any type of certificate.

CML is also an IECEx Certification Body (ExCB) and test laboratory (ExTL) with the full scope of standards.

Services are delivered by over 25 full-time staff, the majority of which are engaged directly in certification, engineering and testing. CML also operates fully-equipped laboratories in Ellesmere Port in the UK, as well as Houston, Texas, USA.

The first ATEX and IECEx certificates were issued in September 2013 and April 2014 respectively by CML with over 1200 certificates issued worldwide to date.

You can find out more from the website:
https://www.cmlex.com/

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