



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Certificate of Approval No 14/2/3**

Issued by the Chief Metrologist under Regulation 60  
of the  
*National Measurement Regulations 1999*

This is to certify that the approval for use for trade granted in respect of the

Email Model M3 Electricity Meter

submitted by            Landis & Gyr Pty Ltd  
                                  60 O'Riordan Street  
                                  Alexandria NSW 2015

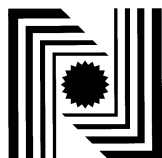
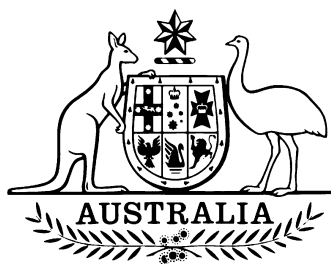
has been cancelled in respect of new instruments as from 1 May 2013.

Signed by a person authorised by the Chief Metrologist  
to exercise their powers under Regulation 60 of the  
*National Measurement Regulations 1999*.

A handwritten signature in black ink, appearing to read 'Dr A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

14/2/3  
14 September 2001



## National Standards Commission

12 Lyonpark Road, North Ryde NSW

### Certificate of Approval

No 14/2/3

Issued under Regulation 60  
of the  
National Measurement Regulations 1999

This is to certify that an approval for use for trade has been granted in respect of the

Email Model M3 Electricity Meter

submitted by **Email Metering**  
**Joynton Avenue**  
**Waterloo NSW 2017.**



**NOTE:** This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

### CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 July 2006, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 14/2/3 and only by persons authorised by the submitter.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document NSC P106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

### DESCRIPTIVE ADVICE

**Pattern:** approved 8 June 2001

- An Email model M3 single phase general purpose electromechanical watt hour meter used to measure electrical energy.

**Variants:** approved 8 June 2001

1. With alternative types of bases.
2. With certain other types of displays.
3. With certain other rated currents.
4. With a compatible Commission-approved current transformer.

Technical Schedule No 14/2/3 describes the pattern and variants 1 to 4.

### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 14/2/3 dated 14 September 2001  
Technical Schedule No 14/2/3 dated 14 September 2001 (incl. Test Procedure)  
Figures 1 to 3 dated 14 September 2001

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.



TECHNICAL SCHEDULE No 14/2/3

**Pattern:** Email Model M3 Electricity Meter.

**Submittor:** Email Metering  
Joynton Avenue  
Waterloo NSW 2017.

### 1. Description of Pattern

An Email model M3 single phase general purpose electromechanical direct connected watt hour meter (Figure 1) used to measure electrical energy.

#### 1.1 Field of Operation

- Number of phases 1
- Number of wires 2
- Reference frequency 50 Hz
- Reference ambient temperature ranges:
  - specified range of operation -10 to 60°C
  - limit range of operation -25 to 70°C
- Rated voltage 240 V AC
- Rated currents: Basic current,  $I_b$  15 A  
Maximum current,  $I_{max}$  100 A
- Accuracy index General purpose

#### 1.2 Features

The pattern has a three terminal rectangular base and a mechanical MK III digital indicator having a maximum display of 99999 kW h (Figure 1).

Instruments may be fitted with an LED voltage indication and/or a device to prevent reverse turning of the rotor disc.

#### 1.3 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	...
Model designation	...
Serial number	...
Pattern approval mark	NSC No 14/2/3
Number of phases	...
Number or wires	...
Reference frequency	... Hz
Temperature limits (if other than -10 to 60°C)	... to ...°C
Meter constant	...
Rated voltage	... AC
Rated currents: Basic current ( $I_b$ )	... A
Maximum current ( $I_{max}$ )	... A
Accuracy index	...

## 1.4 Verification/Certification

Provision is made for the application of a verification/certification mark.

## 1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed by the application of mechanical seals.

## 2. Description of Variants

### 2.1 Variant 1

With alternative bases as listed below:

- With a round or a plug in type base (Figures 2 and 3).
- With a four terminal base.

### 2.2 Variant 2

With any of the mechanical indicators listed below:

- A MK III digital type having a maximum display of 99999.9 kW h;
- A MK III digital type having a maximum display of 999999 kW h;
- A MK III digital type having a maximum display of 9999.9 kW h;
- A MK II digital type having a maximum display of 9999.9 kW h;
- A MK II digital type having a maximum display of 99999 kW h;
- A dial and pointer type having a maximum display of 9999.99 kW h (Figure 2); or
- A dial and pointer type having a maximum display of 99999.9 kW h.

### 2.3 Variant 3

With rated currents as listed below:

- Basic current,  $I_b$       10 A      Maximum current,  $I_{max}$       60 A
- Basic current,  $I_b$       5 A      Maximum current,  $I_{max}$       30 A
- Basic current,  $I_b$       30 A      Maximum current,  $I_{max}$       125 A

### 2.4 Variant 4

With a compatible Commission-approved 5 A current transformer. Instruments then have rated currents as listed below:

- Basic current,  $I_b$       2.5 A      Maximum current,  $I_{max}$       15 A

## TEST PROCEDURE

Instruments tested for initial verification shall comply with the certificate of approval and technical schedule, and the maximum permissible errors for initial and subsequent verifications/certifications at the operating conditions in effect at the time of verification.

### TESTS

A. The following tests shall be carried out in accordance with the Commission's document NSC M 6, *Pattern Approval and Initial Verification of Electricity Meters and Associated Transformers*.

1. AC Voltage Test - at initial verification only.
2. Starting
3. Accuracy

B. At subsequent verifications/certifications only, conduct either of the following tests:

(i) Test for anti-creep function (induction meters):

- (a) Rotate the disc with a pulse current until a point is found at which the disc creeps slowly forward when voltage is applied.
- (b) Then rotate the disc again until a point is found where the disc creeps slowly backwards on voltage only.

If these two points can be located the meter has passed the test and will not creep in service.

or

(ii) Under the following conditions, the rotor may start but shall not complete a revolution:

- (a) Voltage - reference voltage in each voltage circuit.
- (b) Current -  $0.001 I_b$  (P.f. = 1) in each current circuit, and connected in turn for forward and reverse rotation.



**Australian Government**  
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Bradfield Road, West Lindfield NSW 2070

**Notification of Change**  
**Certificate of Approval No 14/2/3**  
**Change No 1**

Issued by the Chief Metrologist under Regulation 60  
of the  
*National Measurement Regulations 1999*

The following changes are made to the approval documentation for the

Email Model M3 Electricity Meter

submitted by           Email Metering  
                                  (now AMPY Email Metering)  
                                  now of 60 O’Riordan Street  
                                  Alexandria   NSW   2015.

A.    In Certificate of Approval No 14/2/3 and its Technical Schedule both dated 14 September 2001, all references to the name and address of the submitter should be amended to read:

                                  “AMPY Email Metering  
                                  60 O’Riordan Street  
                                  Alexandria   NSW   2015.”

B.    In Certificate of Approval No 14/2/3 dated 14 September 2001;

1.    The Condition of Approval referring to the review of the approval should be amended to read:

                                  “**This approval becomes subject to review on 1 July 2012, and then every 5 years thereafter.**”

2.    The FILING ADVICE should be amended by adding the following:

                                  “**Notification of Change No 1 dated 28 August 2007**”

Signed by a person authorised by the Chief Metrologist  
to exercise his powers under Regulation 60 of the  
*National Measurement Regulations 1999.*

A handwritten signature in black ink, appearing to be 'J. G. T.', is located in the bottom right corner of the page.



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Notification of Change**  
**Certificate of Approval No 14/2/3**  
**Change No 2**

Issued by the Chief Metrologist under Regulation 60  
of the  
*National Measurement Regulations 1999*

The following changes are made to the approval documentation for the

Email Model M3 Electricity Meter

submitted by        AMPY Email Metering  
                          60 O’Riordan Street  
                          Alexandria    NSW    2015.

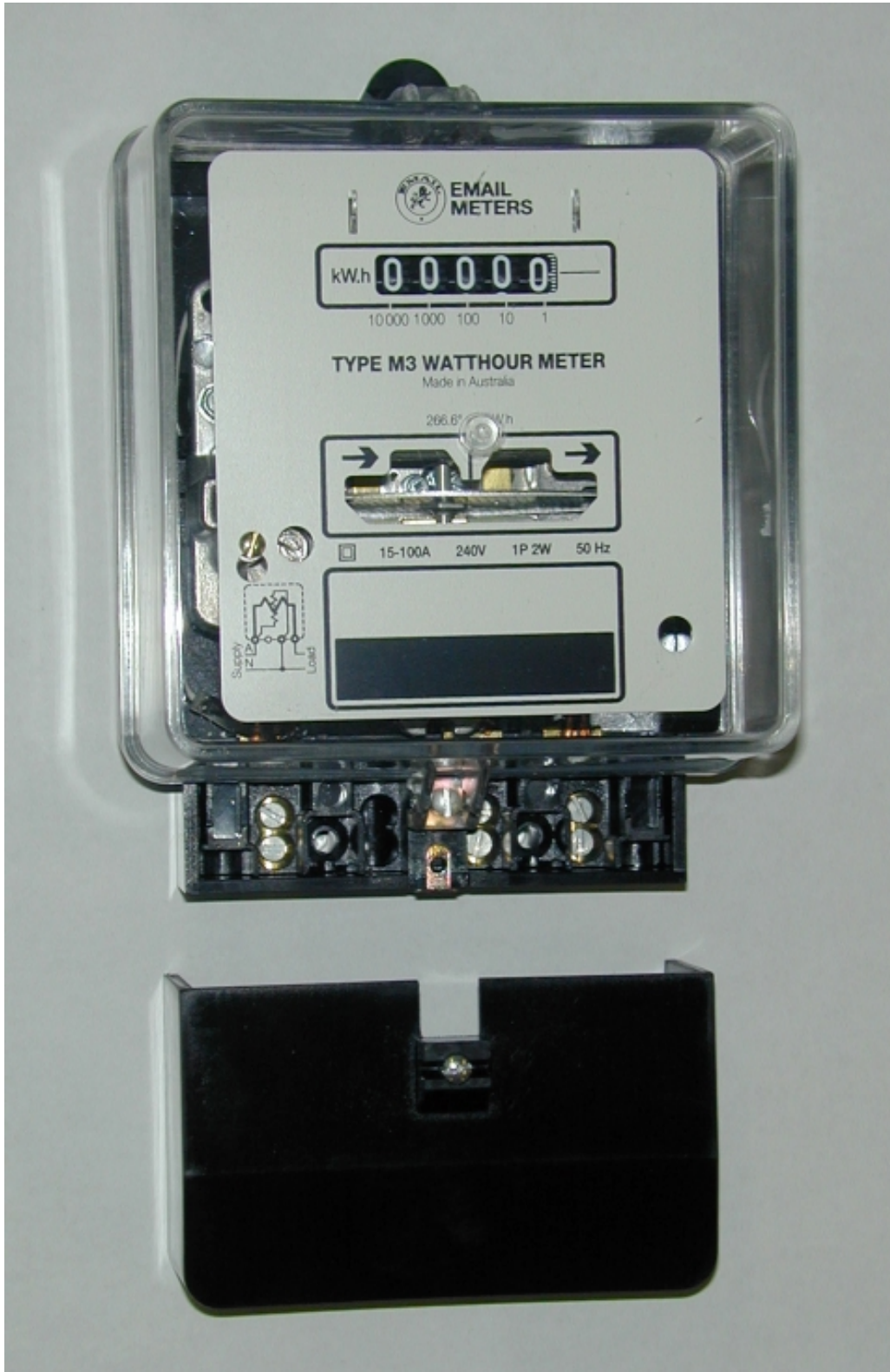
- A.    In Certificate of Approval No 14/2/3 and its Technical Schedule both dated 14 September 2001, all references to the name of the submitter should be amended to read:
- “Landis & Gyr Pty Ltd”
- B.    In Certificate of Approval No 14/2/3 dated 14 September 2001;
1.    The DESCRIPTIVE ADVICE should be amended by adding the following after the bullet point:
- “May also be known as Landis & Gyr instruments of the same model.”
2.    The FILING ADVICE should be amended by adding the following:
- “Notification of Change No 2 dated 13 January 2009
- C.    In Technical Schedule No 14/2/3 dated 14 September 2001, clause **1. Description of Pattern** should be amended by adding the following after the 1<sup>st</sup> paragraph:
- “May also be known as Landis & Gyr instruments of the same model.”

Signed by a person authorised by the Chief Metrologist  
to exercise his powers under Regulation 60 of the  
*National Measurement Regulations 1999.*

A handwritten signature in black ink, appearing to be 'J. G. T.', written in a cursive style.



FIGURE 14/2/3 - 1



Email Model M3 Electricity Meter

14/2/3  
14 September 2001

FIGURE 14/2/3 - 2



Showing Round Base and Dial Type Display

FIGURE 14/2/3 - 3



Showing Plug In Type Base