14/2/25
20 March 2013

Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation

Certificate of Approval No 14/2/25

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

EDMI Model Mk7A Indoor Electricity Meter

submitted by EDMI Pty Ltd
162 South Pine Road
Brendale QLD 4500

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*.

Dr A Rawlinson

Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

No 14/2/25

Issued by the Chief Metrologist under Regulation 60
of the
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This is to certify that an approval for use for trade has been granted in respect of the

EDMI Model Mk7A Indoor Electricity Meter

submitted by EDMI Pty Ltd
162 South Pine Road
Brendale QLD 4500.

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.

This approval has been granted with reference to document NMI M 6, *Pattern Approval and Initial Verification of Electricity Meter and Associated Transformers: Definitions, Metrological and Technical Requirements*, July 2004.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 November 2011, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number ‘NMI 14/2/25’ and only by persons authorised by the submittor.

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It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the National Measurement Institute (NMI) 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 document NMI P 106.

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

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

DESCRIPTIVE ADVICE

Pattern: approved 20 October 2006

- An EDMI model Mk7A electronic single phase Class 1 indoor direct connected static watt hour meter used to measure electrical energy.

Variant: approved 20 October 2006

1. Certain other models of the Mk7A series.

Variant: approved 26 May 2008

2. Certain other models of the Mk7A series with upgraded central processing unit.

Technical Schedule No 14/2/25 describes the pattern and variants 1 & 2.

FILING ADVICE

Certificate of Approval No 14/2/2, its Technical Schedule and Figure 1 all dated 10 November 2006 are superseded by this Certificate and Technical Schedule, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 14/2/25 dated 17 June 2008
Technical Schedule No 14/2/25 dated 17 June 2008 (incl. Table 1, and Test Procedure)
Figure 1 dated 17 June 2008

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

TECHNICAL SCHEDULE No 14/2/25

Pattern: EDMI Model Mk7A Indoor Electricity Meter

Submittor: EDMI Pty Ltd
162 South Pine Road
Brendale QLD 4500

1. Description of Pattern

An EDMI model Mk7A (*) electronic single phase Class 1 indoor direct connected static watt hour meter (Table 1 and Figure 1) used to measure electrical energy.

(* - the full model number is in the form '7A10-A111-020-C211-A02-E000'. This number may also have a '2000-' prefix.)

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 10 A
  Maximum current, I_{max} 100 A
- Accuracy index 1

1.2 Features/Functions

- One (1) element.
- ANSI Type 2 optical interface (ANSI C12.18 communications protocol).
- Liquid crystal digital indicator having a maximum display of 9999999.9 kW h.
- Export active energy measurement (Class 1).
- Eight (8) time-of-use registers.
- Load profiling memory (log intervals of from 1 to 60 minutes).
- Internal battery.
- Bottom connect rectangular base.

1.3 Verification/Certification

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

1.4 Sealing Provision

Provision is made for the calibration adjustments to be sealed by the application of a mechanical seal (Figure 1).

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1.5 Descriptive Markings

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's name or mark	...
Model designation	...
Serial number	...
Pattern approval mark	NMI 14/2/25
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:	I_b ... A
	I_{max} ... A
Accuracy index	Class 1

2. Description of Variants

2.1 Variant 1

Certain other models of the Mk7A series. The model number must begin with '7A10-A' (or '2000-7A10-A') followed by various alphanumeric characters according to the options fitted (refer to Table 1). The optional features include:

- Two (2) elements.
- Flag protocol and port.
- 100 A disconnect relay.
- 60 A load control relay.
- Two 2 A relays.
- RS 232 or RS 485 communications.
- Two input channels and one input/output channel (S0 when configured as output).

2.2 Variant 2

Certain additional models of the EDMI Mk7A series with features/functions as described for the pattern and variant 1 but now with upgraded central processing unit with higher speed and increased flash memory.

TABLE 1

The table below explains approved model numbers which are in the form

‘7A10-A111-020-C211-A02-E00’ (as for the pattern) - this number may also have a ‘2000-‘ prefix.

where all model numbers must begin with ‘7A10-A’ (or ‘2000-7A10-A’) followed by characters such as:

111-020-C211-A02-E000 where

1	represents the number of elements, 1 or 2
1	represents the type (or absence ‘0’) of terminal cover
1	represents ‘button’ option
-0	represents infrared communication port (always absent)
2	represents optical communications
0	represents remote communications
-C	represents memory
2	represents battery
1	represents internal clock (always ‘1’)
1	represents LCD display (always ‘1’)
-A	represents the type (or absence ‘A’) of inputs/outputs
0	represents the type (or absence ‘0’) of input voltage
2	represents the type (or absence ‘0’) of pulsing LEDs
-E	represents the type (or absence ‘E’) of disconnect relays
0	represents fitting (or absence ‘0’) of tamper detection
0	represents fitting (or absence ‘0’) of open cover detection
0	represents fitting (or absence ‘0’) of neutral current measurement

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

1. AC Voltage Test - at initial verification only.
2. Running With No Load - at subsequent verifications/certifications.
3. Starting.
4. Accuracy.

FIGURE 14/2/25 – 1

EDMI Model Mk7A Indoor Electricity Meter