14/2/30
28 August 2013

Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Notification of Change
Certificate of Approval No 14/2/30
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

EDMI Model Mk7C 7C10-A Electricity Meter

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

In Certificate of Approval No 14/2/30 dated 15 May 2007;

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 December **2015**.'

Note: The review date must be 1 December 2015 as the meter was tested against the 1st edition of NMI document M6 dated July 2004 (rather than the current edition)

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

   'Notification of Change No 1 dated 28 August 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 14/2/30

Issued by the Chief Metrologist 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

EDMI Model Mk7C 7C10-A 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 June 2012, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 14/2/30' and only by persons authorised by the submittor.

…./2

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 9 May 2007

- An EDMI model Mk7C 7C10-A electronic single phase Class 1 direct connected static watt hour meter used to measure electrical energy.

Variant: approved 9 May 2007

1. Certain other models of the Mk7C series.

Technical Schedule No 14/2/30 describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 14/2/30 dated 15 May 2007
Technical Schedule No 14/2/30 dated 15 May 2007 (incl. Table 1, and Test Procedure)
Figures 1 and 2 dated 15 May 2007

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 14/2/30

Pattern: EDMI Model Mk7C 7C10-A Indoor Electricity Meter

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

1. Description of Pattern

An EDMI model Mk7C 7C10-A (*) electronic single phase Class 1 direct connected static watt hour meter (Table 1 and Figure 1) used to measure electrical energy.

(* - the full model number is in the form 7C10-A212-20-C211-0A02-0000.)

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.
- Active energy measurement (Class 1).
- Eight (8) time-of-use registers.
- Load profiling memory (log intervals of from 1 to 60 minutes).
- Internal battery.
- 100 A disconnect relay.
- 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 one or more mechanical seals (Figure 2).

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 14/2/30
Number of phases	...
Number or wires	...
Reference frequency	... Hz
Temperature limits (if other than -10 to 60^{o}C)	... to ...^{o}C
Meter constant	...
Rated voltage	... AC
Rated currents:	I_b ... A
	I_{max} ... A
Accuracy index	Class 1

2. Description of Variant 1

Certain other models of the Mk7C series. The model number must begin with '7C10-A' followed by various alphanumeric characters according to the options fitted (refer to Table 1). The optional features include:

- Flag protocol and port.
- RS 232, RS 485 and/or LON PLC communications.
- Various combinations of up to four input/output channels (active or passive when configured as input and S0 or Relay when configured as output).

TABLE 1

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

'7C10-A212-20-C211-0A02-0000' (as for the pattern)

where all model numbers must begin with '7C10-A' (where '1' represents Class 1, '0' represents standard configuration and 'A' represents 10(100) A meter)

followed by characters such as:

212-20-C211-0A02-0000 where

2	represents terminal O/P and Phase Current Measurement
1	represents the type (or absence '0') of terminal cover
2	represents 'button' option (always '2')
-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')
-0	represents the type (or absence '0') of standard I/Os
A	represents the type (or absence 'A') of extended I/Os
0	represents input voltage options
2	represents the number (or absence '0') of pulsing LEDs
-0	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 absence of neutral current measurement (always '0')

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 14/2/30 – 1

EDMI Mk7C 7C10-A Series Electricity Meter

FIGURE 14/2/30 – 2

Showing Typical Sealing