



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Cancellation
Certificate of Approval
No 14/2/15

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
ISKRA Model ME160-D3A42-G12 Electricity Meter

submitted by Formway Metering Services Pty Ltd
 10 Millenium Circuit
 Gaven QLD 4211

has been cancelled in respect of new instruments as from 1 November 2010.

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, consisting of stylized cursive letters, positioned to the right of the signature text.

14/2/15
19 July 2004



Australian Government

**National Measurement
Institute**

12 Lyonpark Road, North Ryde NSW 2113

Certificate of Approval

No 14/2/15

Issued by the Secretary 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

ISKRA Model ME160-D3A42-G12 Electricity Meter

submitted by Formway Metering Services Pty Ltd
10 Millenium Circuit
Gaven QLD 4211.

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 June 2009, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NSC 14/2/15' and only by persons authorised by the submittor.

.../2

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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.

DESCRIPTIVE ADVICE

Pattern: approved 24 May 2004

- A Formway Metering Services model ME160-D3A42-G12 single phase Class 1 static watt hour meter used to measure electrical energy.

Technical Schedule No 14/2/15 describes the pattern.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 14/2/15 dated 19 July 2004
Technical Schedule No 14/2/15 dated 19 July 2004 (incl. Test Procedure)
Figures 1 and 2 dated 19 July 2004

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

A handwritten signature in black ink, consisting of a large, stylized initial 'P' followed by a series of loops and a long horizontal stroke extending to the right.

TECHNICAL SCHEDULE No 14/2/15

Pattern: ISKRA Model ME160-D3A42-G12 Electricity Meter

Submittor: Formway Metering Services Pty Ltd
10 Millenium Circuit
Gaven QLD 4211

1. Description of Pattern

A Formway Metering Services model ME160-D3A42-G12 single phase Class 1 electronic direct connected static watt hour meter (Figures 1 and 2) 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 -40 to 80°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

- 1 element
- 2 energy flow directions
- 1 SO impulse output (DIN 43864)
- four terminal rectangular base
- mechanical digital indicator having a maximum display of 999999.9 kW h.

1.3 Verification/Certification

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

1.4 Sealing Provision

The case components are joined during manufacture and access to the calibration points requires destruction of the case, therefore no other sealing is required.

1.5 Descriptive 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 14/2/15
Number of phases	...
Number of wires	...
Reference frequency	... Hz
Temperature limits (if other than -10 to 60°C)	... to ...°C
Meter constant	...
Rated voltage	... AC
Rated currents:	$I_b \dots A$ $I_{\max} \dots A$
Accuracy index	1

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.

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FIGURE 14/2/15 – 1



ISKRA Model ME160-D3A42-G12 Electricity Meter

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FIGURE 14/2/15 – 2



ISKRA Model ME160-D3A42-G12 Electricity Meter