CANCELLED

NATIONAL STANDARDS COMMISSION

WEIGHTS AND MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S159

This is to certify that an approval has been granted by the Commission that the pattern and variant of the

EFM Model LC5 Digital Indicator

submitted by Electric Force Measurement
78 River Street
South Yarra, Victoria, 3141

are suitable for use for trade, when used to replace the indicator in any Commission-approved weighing instrument.

The approval is subject to review on or after 1/12/88.

Instruments purporting to comply with this approval shall be marked NSC No S159 in addition to the approval number of the pattern to which they are connected.

The approval may be withdrawn if instruments are used other than in accordance with the drawings and specifications lodged with the Commission.

Conditions of Approval

1. The number of scale intervals applicable to any weighing instrument in which this indicator is used, shall be no greater than the number of verification scale intervals approved for the indicator (5000e), the basework, or the load cell(s) whichever is the smallest.

2. This indicator may only be used with load cells requiring an excitation voltage of 40 volts.

Signed
Executive Director

Descriptive Advice

Pattern: approved 9/11/83

. EFM model LC5 digital indicator.

Variant: approved 9/11/83

1. In alternative housings.

Technical Schedule No S159 dated 29/11/83 describes the pattern and variant.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No S159 dated 29/11/83
Technical Schedule No S159 dated 29/11/83
Test Procedure No S159 dated 29/11/83
Figure 1 dated 29/11/83.

29/11/83

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S159

Pattern: EFM Model LC5 Digital Indicator

Submittor: Electric Force Measurement
78 River Street
South Yarra, Victoria, 3141.

1. Description of Pattern

A digital mass indicator (Figure 1) displaying up to 5000 scale intervals. The indicator may be provided with output sockets for the connection of auxiliary or peripheral equipment.

1.1 Zero

Zero within 0.25e, displayed by the zero light being illuminated, may be obtained by pressing the ZERO ADJUST button.

1.2 Net/Gross

Use of the NET/GROSS button allows either the net or gross mass to be displayed, indicated by the appropriate light illuminating.

1.3 Tare

Use of the TARE button allows a mass on the receptor of up to maximum capacity to be tared to within 0.25e. When the mass is removed the tare value prefixed by a minus sign is displayed.

1.4 Display Check

All segments and indicating lights are illuminated whenever power is applied.

1.5 Markings

Instruments which incorporate this indicator are to be marked with the following data, together in a clearly visible location:

Manufacturer's name or mark	
Serial number	
Accuracy class	(III)
Maximum capacity in the form	Max .....*
Minimum capacity in the form	Min .....*
Verification scale interval in the form	e = d = ...*
Maximum subtractive tare in the form	T = - .....
NSC approval numbers - Indicator	NSC No S159...
- Other components	NSC No .....
Load cell serial number(s)	

1.6 Provision for Verification

Provision is made for a verification mark to be applied.

2. Description of Variant 1

In alternative housings.

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*These markings are repeated in the vicinity of the reading face if not already there.

29/11/83

TEST PROCEDURE No S159

The following tests should be carried out in conjunction with any test procedures in the Technical Schedule of the instrument to which the pattern is connected.

All load applications to the instrument should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error as set out in Document 104.

The maximum permissible errors are:

± 0.5e for loads between 0 and 500e;
± 1.0e for loads between 501e and 2000e; and
± 1.5e for loads above 2000e.

1. Zero Range

Check that the range of the zero adjustment is not more than 4% of the maximum capacity (± 2% approximately).

2. Zero Test

Check, by means of Document 104, that when the zero light illuminates, zero is set within 0.25e.

3. Range of Indication

(a) The maximum mass indicated should not exceed the maximum capacity (Max) by more than 10 scale intervals; above this indicated mass the indicator should be blank or show non-numerical symbols.

(b) Below zero the indicator should display the mass prefixed by a minus sign or be blank.

4. Taring

(a) Attempt to tare a mass above maximum capacity as determined in 3(a). On removal of the mass no tare should have been entered, and the indicator should display all zeroes.

(b) The tare function should reset the mass indicator to zero within 0.25e at any load within its tare capacity. This may be checked as described in Zero Test.

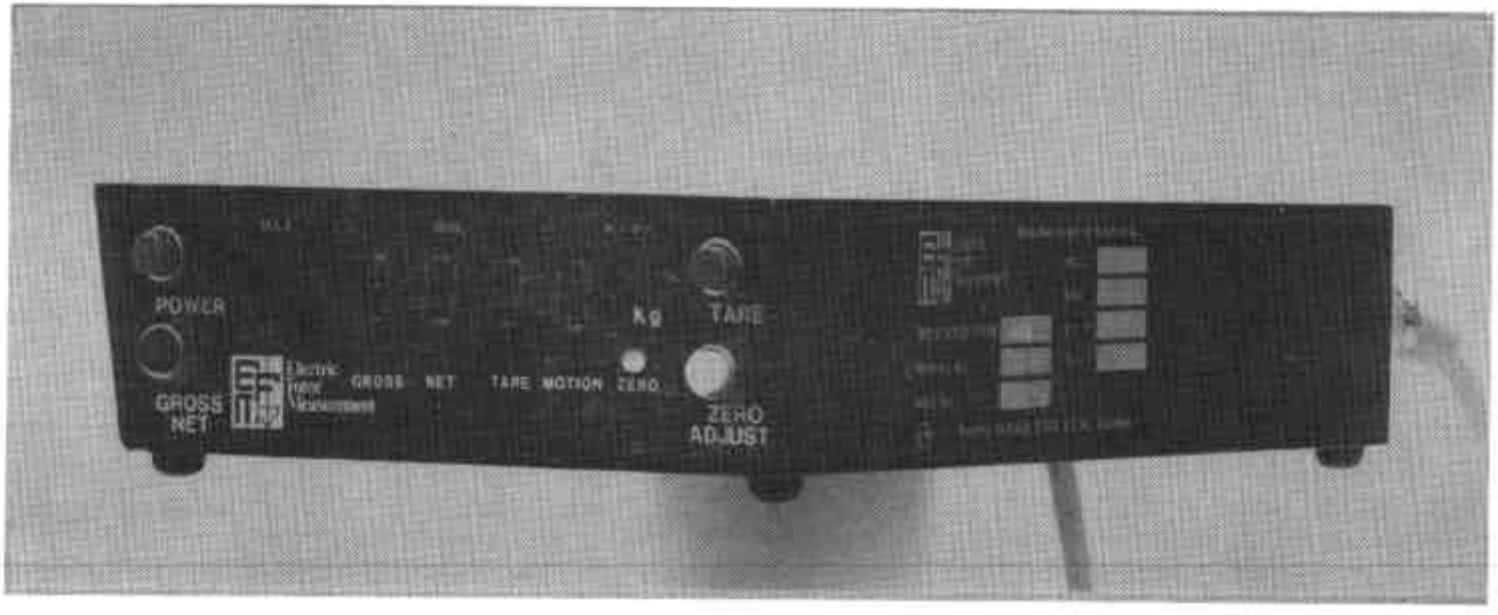
5. Test Loads

Test loads are to be applied to the complete weighing instrument increasing in not less than 5 approximately equal steps to maximum capacity, followed by decreasing loads in not less than 5 approximately equal steps to zero load.

6. Multiple Indicators

Where more than one indicating system is used, the variation between indications or printings for the same load shall not be greater than the absolute value of the maximum permissible error for that load registered on the device with the largest verification scale interval.

FIGURE S159 - 1



EFM Model LC5 Indicator