Australian Government
Department of Industry, Science and Resources

National Measurement Institute

36 Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 15/1/10

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 instruments herein described.

Next Instruments Model CropScan 3000B Whole Grain Analyser Grain Protein Measuring Instrument

submitted by Next Instruments Pty Ltd
B1, 366 Edgar Street
Condell Park NSW 2200

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 M8, *Pattern Approval Specifications for Protein Measuring Instruments for Grain*, dated July 2004.

This approval is subject to review at the decision of the Chief Metrologist in accordance with the conditions specified in the document NMI P 106.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	08/08/22

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 15/1/10' and only by persons authorised by the submittor.

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.

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

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

Darryl Hines
Manager
Policy and Regulatory Services

TECHNICAL SCHEDULE No 15/1/10

1. Description of Pattern approved on 08/08/22

A Next Instruments Model CropScan 3000B Whole Grain Analyser grain protein measuring instrument (Figure 1) used to determine the protein content of a whole grain sample of barley or wheat.

The model CropScan 3000B Whole Grain Analyser is fitted with an LCD touchscreen display/keyboard.

Instruments are approved for use over:

- an operating range of 8 to 18% protein with a scale interval of 0.1%.
- an operating temperature range of 5 °C to 40 °C which must be so marked.

1.1 Design

The model CropScan 3000B Whole Grain Analyser automatically determines the protein content of a sample of grain and displays the value in increments of 0.1%, by using a full spectrum spectrophotometer and a linear array detector; the detected signal is processed by the internal computer to measure the intensity of the infrared energy that passes through the grain sample and so determine the protein content. Results are displayed on the LCD touch screen and may also be exported or printed via an Ethernet/USB port.

1.2 Interfaces

Instruments may be fitted with interfaces as follows:

(a) USB interfaces.

(b) Ethernet interface.

(c) VGA port.

1.3 Power Supply

The instrument is powered by a 19 V AC/DC mains adaptor fitted with an external transient voltage suppressor (TVS) diode module (Figure 2).

Note: The AC/DC mains adaptor supplied for the instrument was XP Power model ALM200PS19C2-8 power supply (output 19 V DC, 10.6 A) – the submittor should be consulted regarding the acceptability of alternative power supply units.

1.4 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Next Instruments Pty Ltd
Pattern approval number for the instrument	NMI 15/1/10
Model designation	.....
Serial number of the instrument	.....
Approved operating range	..... to .....% protein
Scale interval	.....%
Grain type	.....
Special temperature limits	5°C to 40°C
Power supply	100 - 240 VAC, 50/60 Hz

1.5 Verification Provision

Provision is made for a verification mark to be applied.

1.6 System Software

Instruments are fitted with Windows 10 Pro Standard software.

CropScan measurement software version is designated 3.0.x, where x represents the identification of non-legally relevant software.

The measurement software version number appears at the top centre of the screen after pressing the ‘SETTINGS’ button.

1.7 Sealing Provision

Provision is made for sealing the calibration adjustments by a password, and evidence of alteration of the calibration model and configuration is provided by an audit trail.

The audit trail records each change to the calibration model/configuration and its parameters, including all information from the creation to the latest modifications.

Access to the audit trail of protein prediction models may be obtained by the following procedure:

a) At the operation window, press the ‘SETTINGS’ button at the right bottom of the screen.

b) Press the ‘Data Transfer’ button.

c) Press the ‘Log Files’ button.

d) The Audit Trail report ‘-Calibration_Changes_Log.csv’ appears.

TEST PROCEDURE No 15/1/10

Protein Measurement

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

The serial number of the measuring instrument shall be recorded at the time of any verification.

FIGURE 15/1/10 – 1

Next Instruments Model CropScan 3000B Whole Grain Analyser

FIGURE 15/1/10 – 2

AC Adaptor with TVS Diode Module

~ End of Document ~