



Australian Government
Department of Industry,
Science and Resources

**National
Measurement
Institute**

36 Bradfield Road, West Lindfield NSW 2070

**Supplementary Certificate of Approval
NMI S829**

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.

National Weighing Instrument Model Spartan XK3119WP-PRO Weighing Indicator
submitted by National Weighing & Instruments Pty. Limited
(T/A NWI GROUP)
1/88 Magowar Road
Girraween NSW 2145

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 R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated October 2015.

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	02/08/22

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI S829' and only by persons authorised by the submitter.

Instruments incorporating a component purporting to comply with this approval shall be marked 'NMI S829' in addition to the approval number of the instrument, and only by persons authorised by the submitter.

It is the submitter'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 values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

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 S829

1. Description of Pattern **approved on 02/08/22**

A National Weighing Instrument model Spartan XK3119WP-PRO digital mass indicator (Figure 1 and Table 1) which may be configured to form part of:

- A class III weighing instrument with a single weighing range of up to 6000 verification scale intervals; or
- A class III weighing instrument with a single weighing range of up to 1000 verification scale intervals.

The instrument has a stainless steel enclosure with an LCD display for display of the weight value.

The instrument is approved for use over a temperature range of 0°C to +40°C, and must be so marked.

TABLE 1 – Specifications

Maximum number of verification scale intervals	6 000 (class III)
	1000 (class III)
Minimum sensitivity	1 μV /scale interval
Excitation voltage	5 V DC
Maximum excitation current	57.47 mA
Fraction of maximum permissible error	$p_i = 0.5$
Minimum load cell impedance	87 Ω
Maximum load cell impedance	1000 Ω
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	15 mV
Maximum tare range	-100% Max
Special temperature limits	0°C to 40°C
Load cell connection	4-wire plus shielded

(Note: Load cell(s) is (are) connected to the indicator directly without a junction box or lengthening the load cell cable.)

This approval does not include the use of the indicator as an automatic weighing instrument, unless specifically mentioned in a certificate of approval for such an instrument.

1.1 Zero

A zero-tracking device may be fitted.

The initial zero-setting device has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic tare device of up to the maximum capacity of the instrument may be fitted.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Power Supply

The power supply may be either 220 – 240 V AC mains power or 6 V rechargeable battery.

1.5 Additional Features

Instruments may be fitted with counting, animal weighing, and check weighing (HI/OK/LO and buzz) functions. The additional functions (other than the indications of measured mass, i.e. gross, tare, net, totals, displayed either on the indicator or on an auxiliary or peripheral device) are not approved for trade use.

Instruments may also be fitted with a 'weighing unstable sample' or 'animal weighing' function. This function shall not be used for trade use.

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

The calibration is sealed by setting the JP1 jumper to an "OFF" position, and then sealing the instrument with lead and wire type seals with drilled screws or destructible adhesive labels placed over the opposite sides of a join in the instrument housing (Figure 2).

It is possible to determine the jumper status by pressing and holding the "TARE" button.

If the JP1 jumper is in the 'OFF' position, the instrument will not display "CAL SP" and the instrument is sealed.



Otherwise the instrument will display "CAL SP" and the instrument is not sealed.

1.8 Software Version

The legally relevant embedded software is designated VEr 1.0 and appears at initial checking sequence when powering up of the indicator.

1.9 Descriptive Markings and Notices

Instruments carry the following markings:

Manufacturer's mark, or name written in full	National Weighing & Instrument Pty. Limited
Indication of accuracy class	 or 
Pattern approval mark for the indicator	NMI S829
Maximum capacity	<i>Max</i> g, or kg #1
Minimum capacity	<i>Min</i> g, or kg #1
Verification scale interval	<i>e</i> = g, or kg #1
Maximum subtractive tare	<i>T</i> = - g, or kg #2
Serial number of the instrument
Special temperature limits	0°C to +40°C
Pattern approval mark for other components #3

- #1 These markings are shown near the display of the result.
- #2 This marking is required if T is not equal to Max .
- #3 May be located separately from the other markings.

In addition, instruments not greater than 100 kg capacity shall carry a notice stating NOT TO BE USED FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

TEST PROCEDURE No S829

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*.

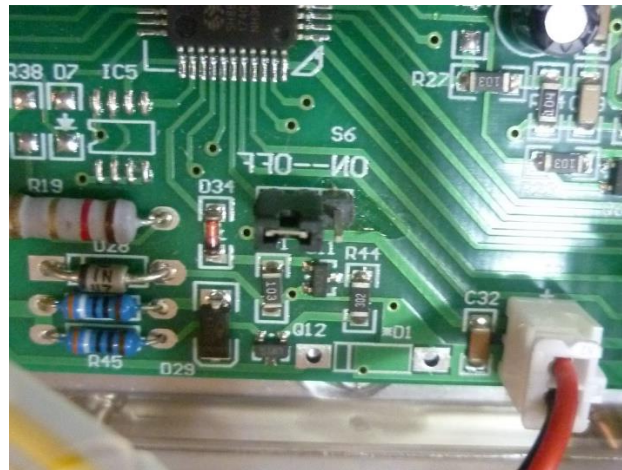
Ensure the instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.

FIGURE S829 – 1

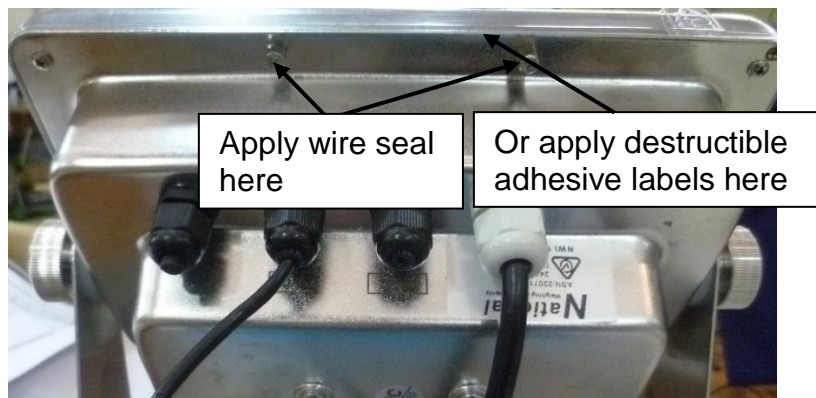


National Weighing Instrument Model Spartan XK3119WP-PRO Weighing Indicator (Pattern)

FIGURE S829 – 2



Jumper JP1 Sealing



Sealed with Lead and Wire Type or Destructible Adhesive Labels

Typical Sealing Method

~ End of Document ~