



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 4/5/16B

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.

ITW Model ETN4A Spirit Dispenser

submitted by ITW Fastex New Zealand
7 Charann Place
Avondale Auckland 1026
New Zealand

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use as a legal measuring instrument 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 2, *Pattern Approval Specifications for Beverage Dispensers*, dated June 2004.

This approval becomes subject to review on 1/03/15, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 & 2 approved – interim certificate issued	9/02/06
1	Pattern & variants 1 & 2 approved – certificate issued	13/04/06
2	Variant 3 provisionally approved – interim certificate issued	14/12/06
3	Variants 3 & 4 approved – certificate issued	5/06/07
4	Pattern & variants 1 to 4 reviewed – notification of change issued	26/07/10
5	Pattern & variants 1 to 4 updated – variant 5 approved – certificate issued	25/10/12
6	Variant 6 approved – certificate issued	24/09/14

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 4/5/16B' 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.

Special For Variant 3

This approval is limited to twelve (12) instruments located at the Queens Arms Hotel, 88 Wright Street Adelaide, SA.

Instruments purporting to comply with variant 3 and currently marked 'NMI P4/5/16B' may be re-marked 'NMI 4/5/16B' but only by persons authorised by the submittor.

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 a series of loops and a long horizontal stroke at the bottom.

TECHNICAL SCHEDULE No 4/5/16B

1. Description of Pattern

approved on 9/02/06

The pattern is an ITW model ETN4A (Figure 1) single delivery push-button activated bottle-mounted spirit dispenser. A wire may be fitted from the solenoid connection on the circuit board to allow transfer of pulse information to an area controller. The controller converts the pulse information into programmed information for downloading to a bar management system.

1.1 Field of Operation

The field of operation of the measuring system:

- Approved for dispensing whisky, rum, vodka, brandy, gin and bourbon
- Designed to dispense a pre-set quantity of 15 mL
- Ambient temperature range 5°C to 40°C
- Mains voltage range 204 V to 264 V

1.2 Instrument Description

The instrument comprises the following:

- A removable bottle adaptor with an internal check valve to allow bottles to be placed onto the reservoir.
- Reservoir with low level detection sensors.
- Liquor evaporation prevention disc located inside the reservoir.
- Volumetric chamber (15 mL) (Figure 2).
- Solenoid-operated internal valving arrangement which allows the volumetric chamber to be emptied and then filled.
- Electronic timing mechanism.
- A push-button for activating a delivery.
- A resettable digital counter for totalising the number of deliveries (up to 999 deliveries).
- A tri-coloured LED for indicating the status of the dispenser.

1.3 Operation

A volume of 15 mL is delivered when a button on the dispensing unit is pressed. Once a delivery is initiated, the button is rendered inoperative and the next delivery cannot be started until the contents in the volumetric chamber has been dispensed and the chamber refilled.

Furthermore, no deliveries are possible if the reservoir has insufficient quantity to fill the volumetric chamber.

The operational status of the instrument is indicated by the single tri-coloured LED, namely:

- When the LED is green the instrument is ready to dispense.
- If the LED is amber then a delivery is in progress.
- A red coloured LED indicates that the instrument is refilling the measuring chamber.
- A flashing red LED signifies that there is insufficient liquor in the measuring chamber to complete another delivery.

1.4 Markings

Instruments are marked with the following, together in a prominent position:

Manufacturer's mark, or name	ITW New Zealand
Model number	ETN4A
Serial number
Pattern approval number	4/5/16B
Year of manufacture

NOTE: The label on the bottle is the indication of the beverage dispensed, and the quantity is permanently marked on the volumetric chamber.

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 Sealing Provision

Provision is made for sealing of the calibration adjustments by sealing disc and sealing lug provided on the underside of the measuring chamber (Figure 3), by means of either a destructive label or by wire and seal.

1.7 Power Supply

The ITW model 09055-7B power supply (Figure 4) may control up to 30 dispensers. The power supply incorporates two lockable key switches, one to supply power to the dispenser and the other for resetting the counter.

2. Description of Variant 1 approved on 9/02/06

The system designed to dispense 30 mL deliveries (Figure 5). The volumetric chamber contains a 30 mL volume displacement spacer and the electronic timing is configured to dispense 30 mL deliveries.

3. Description of Variant 2 approved on 9/02/06

With the removable bottle adaptor described for the pattern replaced by a bulk storage adaptor (Figure 6) which allows spirit to be supplied from a remote storage tank.

The bulk head adaptor comprises a valve controlled by three liquid level sensing probes which replace both the low-liquid level sensor and the liquid evaporation prevention disc of the pattern.

Spirit from the remote storage tank is supplied via any suitable pump, as the measured quantity is not dependant on pressure or rate of flow.

Note: A labelled bottle situated on top on the dispenser is used to identify the beverage dispensed from the remote storage tank.

4. Description of Variant 3 approved on 5/06/07

With a version V5-1 printed circuit board for use in connection with a point of sale management system.

Refer to the Special Conditions of Approval in Certificate 4/5/16B.

5. Description of Variant 4

approved on 5/06/07

With a version V5-2 printed circuit board (Figure 7) for use in connection with a point of sale management system.

6. Description of Variant 5

approved on 25/10/12

With a modified back flow valve (Figure 8).

7. Description of Variant 6

approved on 24/09/14

With an updated power supply model 09055-7B (GMA-102446-EA-001).

TEST PROCEDURE No 4/5/16B

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*.

FIGURE 4/5/16B – 1



TW Model ETN4A Spirit Dispenser

FIGURE 4/5/16B – 2



Volumetric Chamber (15 mL)

FIGURE 4/5/16B – 3



Showing Typical Sealing

FIGURE 4/5/16B – 4



ITW Model 09055-7B Power Supply

FIGURE 4/5/16B – 5



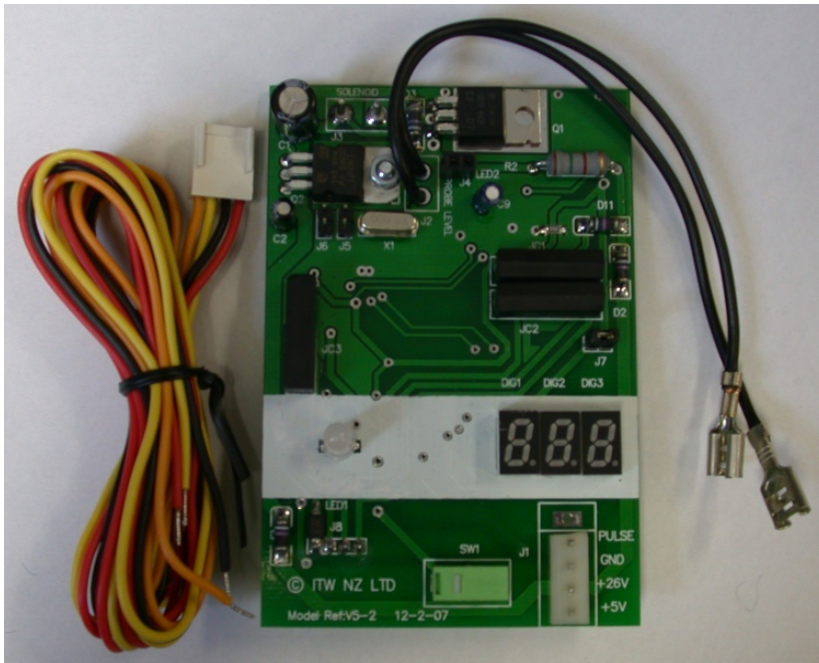
ITW Model ETN4A 30 mL Spirit Dispenser – Variant 1

FIGURE 4/5/16B – 6

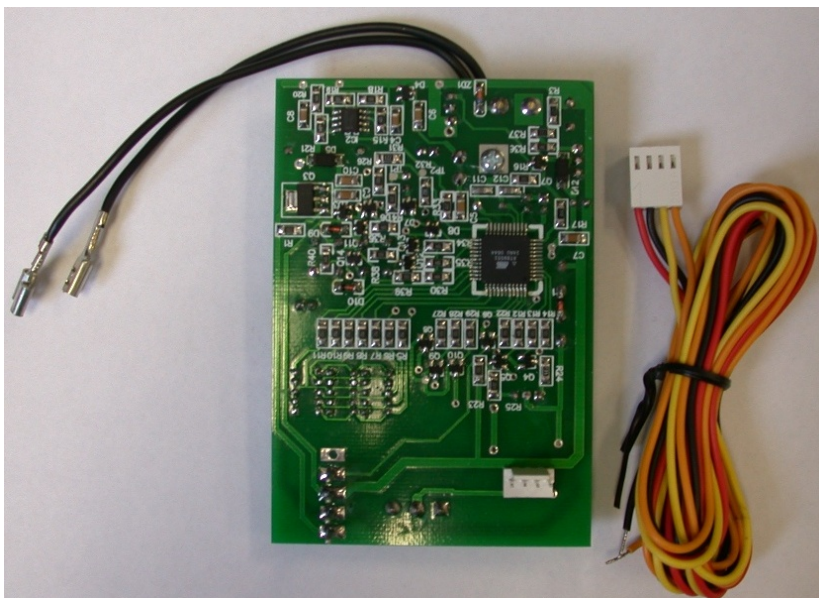


With a Bulk Storage Adaptor – Variant 2

FIGURE 4/5/16B – 7



(a) Front View



(b) Rear View

FIGURE 4/5/16B – 8



Modified Back Flow Valve – Variant 5

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