



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 4/5/12D

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.

KRS Design Model EMU CH8/B Spirit Dispenser

submitted by Bryring Pty Ltd T/A KRS Design
 38 Hamilton Street
 Dapto NSW 2350

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 M 2, *Pattern Approval Specifications for Beverage Dispensers*, dated June 2004.

This approval becomes subject to review on **1/09/16**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 approved – interim certificate issued	23/08/06
1	Pattern & variant 1 approved – certificate issued	12/12/06
2	Pattern & variant 1 reviewed & updated – certificate issued	23/03/12

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 4/5/12D' 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.

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 4/5/12D

1. Description of Pattern

approved on 23/08/06

The pattern is a KRS Design model EMU CH8/B single delivery push-button activated bottle-mounted spirit dispenser (Figures 1 to 3) for the measurement of 30 mL of certain spirits.

1.1 Field of Operation

The field of operation of the measuring system includes:

- Approved for dispensing brandy (including cognac and armagnac), gin, rum, vodka, or whisky (whiskey)
- Designed to dispense a pre-set quantity of 30 mL
- Ambient temperature range 5°C to 40°C
- The dispenser operates at a nominal voltage of 24 V AC
- Mains voltage range 204 V to 264 V

1.2 Instrument Description

The instrument (Figure 1) comprises the following:

- A removable bottle mounting adaptor, which allows a bottle to be replaced without removing the dispenser from its mounting.
- An upper spirit chamber with stainless steel sensors for detecting the availability of spirit for deliveries.
- A push-button for initiating the deliver.
- A solenoid-operated valve for starting and stopping the delivery.
- A lower chamber and spout for preparing and dispensing the prescribed quantity.
- A digital counter, with remote key-operated reset, for displaying a maximum of 9999 deliveries before returning to zero.

1.3 Power Supply

An EMU model KR-9379 (24 V AC) power supply plug pack for EMU Systems with an EMU modular rack comprised of 4 or less dispensers, or an EMU model KR-9380 (100 V AC) power supply unit for EMU Systems with an EMU modular electronic rack comprised of from 5 to 12 dispensers (Figure 2). The submittor should be consulted regarding the acceptability of alternative power supplies.

1.4 Operation

On power-up the instrument performs a functional check, during which a red LED flashes and a 'beep' will be heard. A green LED will light when the instrument is ready for use.

Pressing the delivery push-button causes the solenoid-operated valve to open for a calculated time allowing 30 mL of spirit to be delivered. During the delivery the green LED flashes until the contents of the lower chamber have been dispensed.

The process is electronically-controlled such that a delivery, once started, cannot be stopped until the delivery is complete and a new delivery is not possible unless the upper spirit chamber is completely full.

1.5 Markings

Instruments are marked with the following, details in prominent positions on the front of the instrument (Figure 1). Duplicate details are also marked on the back of the instrument (Figure 3):

Manufacturer's mark, or name	Bryring Pty Ltd
Model number	CH8/B
Serial number
Pattern approval number	4/5/12D
Year of manufacture ('Build Year')

1.6 Verification Provision

Provision is made for the application of a verification mark.

1.7 Sealing Provision

Sealing lugs are provided on the side of the instrument (Figure 4). Alternatively, one or more destructible adhesive labels may be placed across the join of the instrument body halves (Figure 4).

2. Description of Variant 1

approved on 23/08/06

The system designed to dispense 15 mL deliveries.

TEST PROCEDURE No 4/5/12D

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*.

The instrument employs a 'cleaning reminder' alarm system to alert the operator when it is time to flush hot water through the dispenser to clean it. The cleaning instructions are documented in the standard cleaning and service procedure sheet supplied with each unit

FIGURE 4/5/12D – 1



KRS Design Model EMU CH8/B Spirit Dispenser

FIGURE 4/5/12D – 2



FIGURE 4/5/12D – 3



Rear View Showing Additional Labelling

FIGURE 4/5/12D – 4



Showing Sealing Lugs and Typical Destructible Seal Location

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