

Retail Point-Of-Sale variable measure

Fact Sheet

Like a Fixed Measure Trade Item, a Variable Measure Trade Item is an entity with pre-defined characteristics such as the nature of the product or its contents. Unlike a Fixed Measure Trade Item, a Variable Measure Trade Item has one measure that varies continuously while other characteristics remain the same. Examples of these measures that vary are weight, length, number of items contained or volume.

The following solutions are available for variable measure trade items scanned at retail POS:

- Variable measure trade items using a Variable Measure Number (VMN) encoded in a EAN/UPC Symbology. This is a National Solution only.
- Variable measure fresh food trade items using a GTIN, and additional attributes encoded with a GS1 DataBar Expanded or GS1 DataBar Expanded Stacked. 2D barcodes approved for POS can be used **in addition** to the linear barcodes during transition period.

National solution: use a VMN-13 (Restricted Circulation Number)

Identification

Any company providing its own branded Variable Measure Trade Items to the Australian retail sector can adopt this solution. GS1 Australia has reserved prefixes 28, 29, 22 and 24 series specifically for this purpose in GS1's prefix range of Variable Measure Numbers (VMNs). Equipment suppliers should ensure that POS equipment recognises the prefixes listed above as being variable measure with price and a significant Check Digit.

Manufacturers who wish to label and apply barcodes to Variable Measure Trade Items must apply to GS1 Australia for **standard variable measure company item numbers**. These numbers identify the items and the company they are allocated to and are for use in conjunction with weighing machines and labelling at the point of packaging.

Note: For internal applications (e.g., retailer assigned variable weight products), contact the retailer to obtain their required format.

Do not re-use a standard variable measure number until at least 12 months has elapsed since the manufacturer last distributed the original item. GS1 Australia needs be notified when variable measure numbers have been deleted as these numbers will then be withdrawn, making them available to be re-issued by GS1 Australia to another member/item in the future.

Table 1: VMN-13 structure

GS1 Prefix	Company / Item Identification	Price Verifier	Price	Check Digit
28, 29, 22 or 24	n ₃ n ₄ n ₅ n ₆	n ₇	n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂	n ₁₃

The GS1 Prefix 28, 29, 22 or 24 identifies the VMN as a standard variable weight with price within Australia.

The Company and Item Identification digits identify the company/packer and the item that it is allocated to.

The Price Verifier Digit validates the accuracy of the five-digit price that follows. It can be seen as part of the VMN-13 when using the downloadable Check Digit calculator. The Price Verifier Digit is different to the Check Digit (see below).

Note: The scales/weighing machines that weigh variable measure items should be programmed to calculate the Price Verifier Digit for the five-digit price. For instructions on manual calculation of the Price Verifier Digit refer to the *GS1 General Specifications*.

The Price: the next five digits represent the price of the individual variable weight item to two decimal places. The scales/weighing machines that print the barcode label should be programmed to calculate the five-digit price.

The Check Digit is mathematically calculated to ensure that the whole number is correct. Correct calculation is essential for successful scanning of the barcode:

- A Check Digit Calculator Program which will automatically calculate the **Price Verifier Digit** and **Check Digit** can be obtained from the GS1 Australia web site at www.gs1au.org
- When using this Check Digit Calculator program choose the "VMN-13" option.

Barcode

Figure 1



VMN-13 encoded in an EAN-13 barcode. Figure 1 not up to scale. Refer to EAN-13 barcode factsheet for specifications.

Global Solution (for Fresh Food Trade Items): use a GTIN plus attribute data

Currently there is a push from industry to migrate from current VMNs to GTIN (Global Trade Item Number) plus additional data (Data can include for example; pack weight, price, best-before-date, or batch number). Migrating from VMN to GTIN will enable retailers and suppliers to expand their business functionalities.

Migration from VMN to GTIN means that suppliers will need to change the numbers they use to identify their trade items sold at retail.

To get started you need to assign a new GTIN, for each product to replace the variable weight number. The GTIN is assigned by the Brand Owner and needs to be communicated to all of your trading partners so that they can enter these in their POS systems. In case of the product is private label, this means that the retailer will be responsible for the creation of GTINs and providing the same to the supplier.

Identification

Variable Measure Fresh Food – Loose Produce

Variable Measure Loose Produce Fresh Food trade items may be identified with a GTIN and additional data and it is the retailer who decides how to handle these trade items sold at POS. Generally, the individual item(s) (i.e. Loose Produce) are put into a bag by the customer or by staff and are scanned (if a label is generated in store) or weighed at POS to generate the price. The attributes of variable measure trade items are barcoded when the trade item is weighed or measured in store. If the variable measure trade item is weighed at POS when presented to the cashier, the price is generated in the register and directly added to the other products to complete the transaction.

Variable Measure Fresh Food - Pre-Packed

These are Variable Measure Fresh Foods Trade Items, either Loose Produce or cut from a bulk item, that are pre-packaged with differing weight or other variable measure using GTIN and attributes. The label put on the trade item encoding GTIN plus variable measure information and/or price is determined by the retailer.

There are two components to the identification of Fresh Food variable measure trade items:

- **GTIN-13:** For the structure of a GTIN-13 refer to the *Assigning a GTIN-13 Fact Sheet*.
- **Attribute Data:** In addition to a GTIN-13, attribute data such as a Count AI (30) or a Trade Measure AI (31nn) are required for complete identification of the variable measure trade item.

Barcode

The GTIN-13 and attribute data are encoded in:

- a GS1 DataBar Expanded or GS1 DataBar Expanded Stacked (Figure 2) barcode (refer to the *GS1 DataBar at POS Fact Sheet*),
- 2D barcodes approved for POS – GS1 DataMatrix, QR Code with GS1 Digital Link or Data Matrix with GS1 Digital Link can be used **in addition** to the linear barcode during transition period.
- Figure 2:GS1 DataBar Expanded Stacked



Figure 3:GS1 DataMatrix



Both Figure 2 & 3 not up to scale.