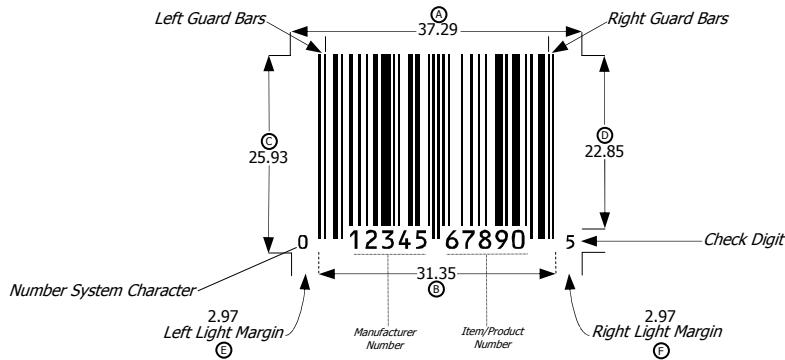


UPC-A



Nominal size (Magnification 100%) UPC-A bar code symbol illustration

UPC-A symbol dimensions (mm)

Magnification Factor	(A) Width of Bar code (incl. LM)	(B) Width from Left GB to Right GB	(C) Height of Bar code (incl. HRC*)	(D) Height of Bars (excl. GB & HRC)	(E) Left Light Margin/Quiet Zone (minimum)	(F) Right Light Margin/Quiet Zone (minimum)
0.80	29.83	25.08	20.74	18.28	2.38	2.38
0.85	31.70	26.65	22.04	19.42	2.53	2.53
0.90	33.56	28.22	23.34	20.57	2.68	2.68
0.95	35.43	29.78	24.63	21.71	2.82	2.82
1.00	37.29	31.35	25.93	22.85	2.97	2.97
1.05	39.15	32.92	27.23	23.99	3.12	3.12
1.10	41.02	34.49	28.52	25.14	3.27	3.27
1.15	42.88	36.05	29.82	26.28	3.42	3.42
1.20	44.75	37.62	31.12	27.42	3.57	3.57
1.25	46.61	39.19	32.41	28.56	3.72	3.72
1.30	48.48	40.76	33.71	29.71	3.86	3.86
1.35	50.34	42.32	35.01	30.85	4.01	4.01
1.40	52.21	43.89	36.30	31.99	4.16	4.16
1.45	54.07	45.46	37.60	33.13	4.31	4.31
1.50	55.94	47.03	38.90	34.28	4.46	4.46
1.55	57.80	48.59	40.19	35.42	4.60	4.60
1.60	59.66	50.16	41.49	36.56	4.76	4.76
1.65	61.53	51.73	42.78	37.70	4.90	4.90
1.70	63.39	53.30	44.08	38.85	5.05	5.05
1.75	65.26	54.86	45.38	39.99	5.20	5.20
1.80	67.12	56.43	46.67	41.13	5.35	5.35
1.85	68.99	58.00	47.97	42.27	5.50	5.50
1.90	70.85	59.57	49.27	43.42	5.65	5.65
1.95	72.72	61.13	50.56	44.56	5.80	5.80
2.00	74.58	62.70	51.86	45.70	5.94	5.94

Note: In the heading of this table, incl. = including, excl. = excluding, LM = Light Margins, GB = Guard Bars, HRC = Human Readable Characters

HRC*: When recommended OCR-B font is used. Dimensions are in millimetres.

The **Universal Product Code** symbology is used throughout the American grocery industry and has expanded into general retail as well. In its standard version (UPC-A), the bar code consists of a five digit **Manufacturer Number** and a five digit **Product Number**. In addition, there is a one digit **Number System Character** at the start of the code and a **Check Digit** at the end of the code. The number system digit/character denotes the use of one of ten number systems defined by UCC (Uniform Code Council):

- 0, 6 & 7 Are for regular UPC codes with a five digit UCC company prefix.
- 2 Is for random weight items, e.g. meat and produce, bar code symbol marked in-store.
- 3 Is for National Drug Code (NDC) and National Health Related Item Code (NHRIC).
- 4 Is for in-store marking of non-food items.
- 5 Is for coupon use.
- 8 Is for regular UPC codes with variable length UCC company prefixes or five digit UCC company prefixes.
- 1 & 9 Are not used at present.

The Human Readable Characters (HRC) for the *Number System Character* and the *Check Digit* are printed at a smaller font size and separately from the other digits.

Light Margins: All bar code types require a certain amount of light space (or quiet zone) to the left and right of the code. This enables the scanner to differentiate between the bar code and surrounding graphics. Should the wrong type of graphic image or colour intrude on the light margin, there is a risk that the bar code will not decode, or worse, will decode incorrectly.

Note: Hard copying this PDF document may result in a slight reduction of the intended physical size of the above UPC-A bar code symbol.

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