



9.2.1 EAN-13 Symbol Specifications

The EAN-13 Bar Code is used to encode a GTIN-13, and can be scanned in both a retail POS and a General Distribution Scanning Environment.

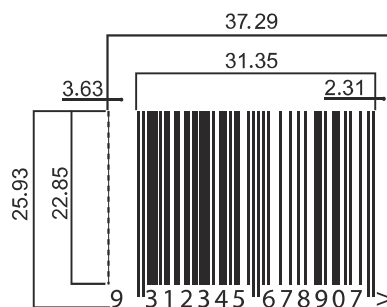


Figure 7 EAN-13 Bar Code at Nominal Size (100%)

Magnification

The specified magnification range for an EAN-13 Bar Code being scanned at retail POS 80% - 200% (X-dimension 0.26mm - 0.66mm).

An allowable minimum magnification of 75% (X-dimension 0.25mm) is applicable only to on demand (e.g. thermal) print processes. In this case, the bar height should never be truncated below the minimum required height for an 80% magnification bar code. When printing a minimum symbol with any method of printing, the area provided for printing the symbol and the required Quiet Zone should never be less than the area required for an X-dimension of 0.264 millimetre.

Where an item may also be scanned in a General Distribution Scanning environment (automated scanning), the allowable magnification range is 150% to 200% (X-dimension 0.50mm – 0.66mm).

Human Readable Interpretation

The Human Readable Interpretation should be printed beneath the bar code and must show all of the digits encoded in the bar code.

The recommended typeface for the Human Readable Interpretation is OCR-B at a height of 2.75mm at nominal size (100% magnification, X-dimension 0.33mm). This typeface is a recommendation only and alternative type fonts and character sizes are acceptable provided the digits are clearly legible.

Symbol Height

The dark bars forming the left, centre and right Guard Bar Patterns shall be extended downward by 5X (e.g. 1.65mm at X-dimension 0.33mm)

See Table 130 for height of bars at various X-dimensions.





EAN-13 Bar Code Dimensions

Magnification	X-dimension	Width	Bar Height	Left Quiet Zone	Right Quiet Zone
80%	0.26	25.08	18.28	2.90	1.85
85%	0.28	26.65	19.42	3.09	1.96
90%	0.30	28.22	20.57	3.27	2.08
95%	0.31	29.78	21.71	3.45	2.19
100%	0.33	31.35	22.85	3.63	2.31
105%	0.35	32.92	23.99	3.81	2.43
110%	0.36	34.49	25.14	3.99	2.54
115%	0.38	36.05	26.28	4.17	2.66
120%	0.40	37.62	27.42	4.36	2.77
125%	0.41	39.19	28.56	4.54	2.89
130%	0.43	40.76	29.71	4.72	3.00
135%	0.45	42.32	30.85	4.90	3.12
140%	0.46	43.89	31.99	5.08	3.23
145%	0.48	45.46	33.13	5.26	3.35
150%	0.50	47.03	34.28	5.45	3.47
155%	0.51	48.59	35.42	5.63	3.58
160%	0.53	50.16	36.56	5.81	3.70
165%	0.54	51.73	37.70	5.99	3.81
170%	0.56	53.30	38.85	6.17	3.93
175%	0.58	54.86	39.99	6.35	4.04
180%	0.59	56.43	41.13	6.53	4.16
185%	0.61	58.00	42.27	6.72	4.27
190%	0.63	59.57	43.42	6.90	4.39
195%	0.64	61.13	44.56	7.08	4.50
200%	0.66	62.70	45.70	7.26	4.62

Note: In the heading of this table, Width = Width of bar code excluding Quiet Zones, Bar Height = Bar Height excluding guard bar patterns. It is recommended to always allow slightly more than the minimum required Quiet Zone to allow for any possible ink spread or registration issues. All measurements are in millimetres.

TABLE 130 EAN-13 Bar Code Dimensions

Note: For information regarding the differences between EAN-13 and UPC-A Bar Codes please refer to “Differences Between UPC-A and EAN-13 Bar Codes” on page 201

