

# **ONIX for Books**

## **Product Information Message**

Application Note: Weights and dimensions  
in ONIX 3.0

Information about the size and weight <sup>1</sup> of a physical book product is vital to printers, distributors and wholesalers, and to retailers. However, it is *not* always treated with such importance by publishers who are the original source of much of the metadata in the book supply chain. As a result, **dimension data from publishers is often inaccurate, missing from industry-standard ONIX metadata files** or provided only after delivery of copies from the printer. As a result, where present, measurements are treated by data recipients with a low degree of confidence. **This can mean unnecessary costs for supply chain partners:** distributors and wholesalers often duplicate the work of measuring the book-in-hand at goods-in, and retailers have to make guesses about shipping costs to consumers who place orders prior to publication.

And yet ONIX data files can contain all the necessary metadata, and even prior to any book-in-hand measurements, relatively accurate calculations of size and weight can be made.

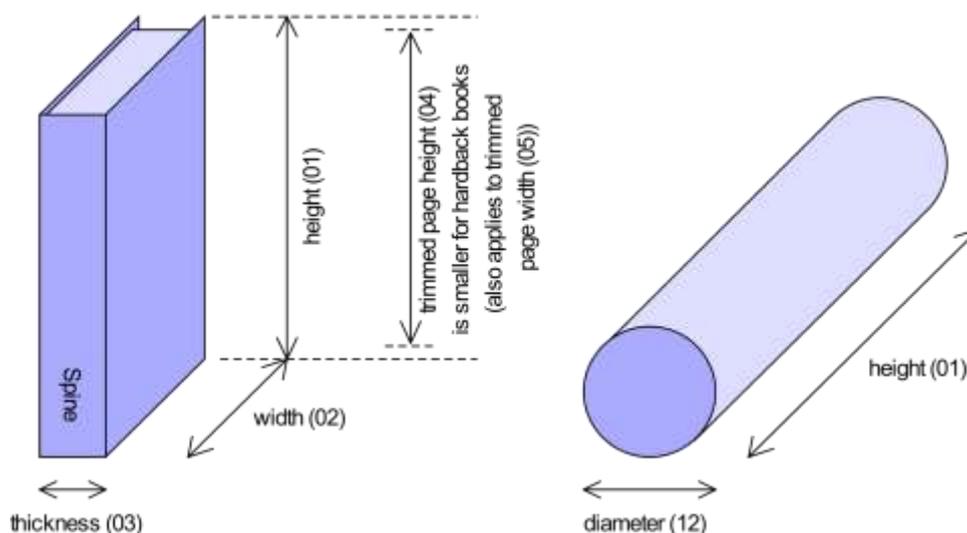
### The ONIX <Measure> composite

The <Measure> composite is a repeatable structure that can carry one dimension of measurement per repeat. It is identical in ONIX 2.1 and 3.0 <sup>2</sup>. It takes the form:

```
<Measure>
  <MeasureType>01</MeasureType>    <!-- 197mm high overall -->
  <Measurement>197</Measurement>
  <MeasureUnitCode>mm</MeasureUnitCode>
</Measure>
```

where <MeasureType> is a code taken from ONIX [Codelist 48](#) that specifies the dimension of the measurement (height, width, weight *etc*), <Measurement> is the numerical measurement itself, and the <MeasureUnitCode> specifies the units – imperial or metric – used. The whole structure can be repeated for different dimensions or units.

Typically, a complete ONIX record for a physical book should contain the overall product height, width, spine thickness and weight. It is good industry practice to provide the necessary measurements as early as practicable, and (in the UK) at least 16 weeks prior to publication <sup>3</sup> – given the expected timescale, it is completely normal to provide measurements based on specifications provided to the printer, without waiting for confirmation of the exact dimensions from the manufactured book-in-hand.



<sup>1</sup> or more correctly, mass

<sup>2</sup> exception – it's <MeasureType> in ONIX 3.0, but <MeasureTypeCode> in ONIX 2.1

<sup>3</sup> in other countries, supply chain best practice may be to provide measurements even earlier than this

The diagram above shows the codes from List 48 that are used in <MeasureType>. **As an absolute minimum, the overall height (01) and width (02) should be provided for all physical books**, with the spine thickness and weight provided later, as they become available. For products such as maps or posters, both folded (or rolled) and flat measurements should be included whenever possible, but if only one set of dimensions can be included, the folded (or rolled) sizes used at retail and for shipping are preferred. (The table at the end of this document lists some additional codes, and some equivalent codes used in EDI messages.)

**Use metric measurements** (millimeters for height, width, thickness, and grams for weight). Additionally, repeat the same measurements using imperial units (inches, ounces) if the product will be for sale in the USA. It is not unusual to have six or eight repeats of the <Measure> composite in an ONIX record. When sending measurements in ONIX, work to the nearest millimeter, or the nearest 1/8 inch, or for weight, the nearest 5 grams or 1/8 ounce. When receiving measurements, recipients should treat linear measurements as having an expected accuracy within  $\pm 2\text{mm}$  or  $\pm 1/8\text{in}$ , and weights with an accuracy of  $\pm 5\text{gr}$  or  $\pm 1/4\text{oz}$ . This is enough to account for typical commercially acceptable manufacturing tolerances, and minor variations in weight due to paper humidity.

## Common issues

**Never provide zero, 1, -1 or any other number in place of unknown measurements** (in fact, in ONIX 3.0, a zero or negative measurement will fail validation).

**And never provide 'default' measurements** – a seemingly 'reasonable' default figure is much worse than no information at all, as retailers might for example use it to calculate their expected carriage costs for your product.

**Don't confuse height and width** – for most books, height (measure type 01) is the largest dimension. (A few books are landscape orientation, so the width is the largest dimension.)

**Ensure you specify the correct units** – it is not unknown for a publisher to claim their B-format paperbacks are 197 centimetres in height instead of 197 millimetres. This is usually a configuration option in the software application that manages the publisher's metadata.

**Inconsistency between measurements supplied in <Measure> and standard format information supplied in <ProductFormDetail>** – for example using the code for 'B-format' but providing measurements that are significantly different from the usual B-format size (see the table below for common standard format sizes).

**For unknown measurements, simply omit the relevant <Measure> composite.** And obviously, don't provide physical dimensions for products delivered electronically.

**Never confuse overall height and width with the trimmed page size.** Publishers use the TPS to specify the physical size of the book to the printer and binder, but other parties in the supply chain require the overall size. For paperbacks where the cover is trimmed flush with the book block, the two sets of dimensions are identical. For hardbacks and many other forms of binding, the two are different – and those extra few mm where the cover boards extend beyond the book block may be critical for packing in cartons, or for mail order fulfillment.

It is good practice for the publisher to supply the overall dimensions, but ONIX can include either or both sets of measurements – for example code 01 in <MeasureType> indicates the overall height of the product, and code 04 is the trimmed page height. Always use the right Measure type code. So, for an example Demy hardback:

```
<Measure>
  <MeasureType>04</MeasureType>
  <Measurement>216</Measurement> <!-- 216mm trimmed page size -->
  <MeasureUnitCode>mm</MeasureUnitCode>
</Measure>
<Measure>
  <MeasureType>01</MeasureType>
  <Measurement>223</Measurement> <!-- 216mm + board allowance -->
  <MeasureUnitCode>mm</MeasureUnitCode>
</Measure>
```

If for any reason only the TPS is supplied, ONIX senders and recipients should ensure TPS height and width are not confused with the overall dimensions, as an error can lead retailers to believe the product is smaller than it really is. A good estimate of the overall dimensions can be calculated from the TPS relatively simply, based on the product form: for example, with hardbacks, the overall dimensions are 6–8mm larger in both height and width than the TPS, to account for the projection of the cover boards beyond the book block.

Just as the overall height and width are different from the trimmed page size, the overall spine thickness is not the same as the thickness of the book block prior to addition of the cover. The book block thickness can be calculated with reasonable accuracy if the production extent<sup>4</sup> and the bulk or caliper (sheet thickness) of the paper is known. The overall thickness includes an allowance for the cover material (boards, any decorative board covering, the jacket *etc*). **Where calculated dimensions are provided, the publisher should update the metadata as soon as actual dimensions are known.**

The weight of the product can also be calculated in advance if the production extent, paper weight (GSM) and board weight are known. Allowance might be needed for different grades of paper in any plate section or insert, and weight is always subject to slight variations owing to the varying water content (humidity) of the paper. However, it is recognized that publishers may not always be able to provide accurate weights 16 weeks in advance because of continuing uncertainty about the extent or even the paper grade. The data should be provided as soon as a reasonable calculation is available and updated after manufacturing as soon as an actual weight is known.

**Publishers should update their systems with real measurements of height, width, thickness and weight as soon as they receive early printed copies from the printer, and the ONIX metadata should be updated.**

**The overall height, width and thickness should always *include* any retail packaging** – for example, slipcases, jewel cases or boxes – in which the product is supplied to the consumer. It is possible to provide measurements without packaging separately, if required, using a different <MeasureType>.

**Publishers should ensure they update their metadata if any measurements change significantly.** This is likely to happen when a reprint uses a different grade of paper, or when the product transitions to a different printing method (*eg* litho to xerographic ‘print on demand’). Minor variations such as changes in weight due to varying paper humidity are unlikely to be significant and do not usually merit an update.

**Publishers and their distributors should ensure consistency** between measurements provided in ONIX and the equivalent measurements provided via (for example) EDI messages (see the table below for these equivalents).

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EDItEUR  
4 Oct 2016

These notes are adapted from the *ONIX 3.0 Implementation and Best Practice Guide* (DOI: [10.4400/zuim](https://doi.org/10.4400/zuim)), but apply more or less equally to ONIX 2.1. The ‘common issues’ were all noted in real publisher data feeds during and after a BIC workshop in September 2016.

The table shows the codes from List 48 that can be used in ONIX, plus their EDI equivalents:

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<sup>4</sup> the production extent includes any front and back matter, blank pages *etc* that may not be included in the more conventional extent. Allowance should also be made for plate sections *etc*, which may be manufactured on a different grade of paper

ONIX codelist 48 <a href="https://ns.editeur.org/onix/en/48">https://ns.editeur.org/onix/en/48</a>		EDI 6313 equivalent (mandatory in MEA segments)
01	Overall height	HT
02	Overall width	WD
03	Overall (spine) thickness	TH
04	Trimmed page height	
05	Trimmed page width	
08	Unit weight	AAA
09	Diameter (of sphere)	
10	Unfolded sheet height (of map, poster etc)	
11	Unfolded sheet width (of map, poster etc)	
12	Diameter (of round tube)	
13	Side (of square or triangular tube-shaped package)	
14	Unpackaged height (as code 01, but of the product <i>without</i> its packaging)	
15	Unpackaged width	
16	Unpackaged thickness	

Note that measurements in EDI should always be *overall* dimensions, not trimmed page sizes. The *unpackaged* sizes (codes 14–16) cannot be specified in ONIX 2.1.

The table shows the codes from List 175 (the same codes are used in List 78 for ONIX 2.1), as well as other common UK and US book sizes

ONIX codelist 175 <a href="https://ns.editeur.org/onix/en/175">https://ns.editeur.org/onix/en/175</a>		Standard trimmed page size
B104	A-format (UK)	178 x 111 mm
B105	B-format (UK)	198 x 129 mm
–	Demy (UK)	216 x 135 mm
–	Royal (UK)	234 x 156 mm
B106	Trade paperback (UK)	often Demy or Royal
B101	Rack size (US)	6¾–7½ x 4¼ in
B107	Tall rack size (US)	7½ x 4¼ in
B102	Trade paperback (US)	often 8 x 5 in or larger

The ONIX 3.0 'strict' schema makes a  $\pm 3$  mm allowance on the dimensions for A and B-format, and  $\pm \frac{1}{8}$  in allowance on the dimensions of Rack and Tall rack sizes. In theory, these could be bound in landscape, but in practice are always treated as portrait. The strict schema does not check the consistency of dimensions of Demy, Royal or Trade paperback sizes.