

ONIX for Books

Product Information Message

Application Note: Weights and dimensions
in ONIX 3.0

Information about the size and weight ¹ of a physical book products 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 missing from industry-standard ONIX metadata files**, or provided only after delivery of copies from the printer, and where present, measurements are treated by data recipients with a relatively 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.

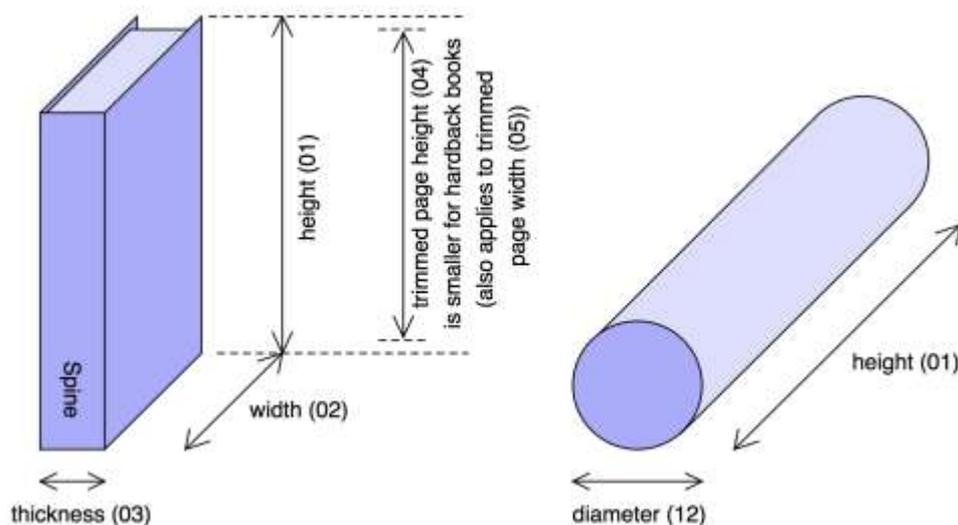
The ONIX <Measure> composite

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 ². 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 ³ – 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.



The diagram shows the codes from List 48 that are used in <MeasureType>. **As an absolute**

¹ or more correctly, mass

² exception: it's <MeasureType> in ONIX 3.0, but <MeasureTypeCode> in ONIX 2.1.

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

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 (use millimetres 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 US. 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 $\frac{1}{16}$ inch, or for weight, the nearest 5 grams or $\frac{1}{8}$ ounce. There is no point in specifying fractions of a millimeter or gram. When receiving measurements, recipients should treat linear measurements as having an expected accuracy within $\pm 2\text{mm}$ or $\pm \frac{1}{8}\text{in}$, and weights with an accuracy of $\pm 5\text{gr}$ or $\pm \frac{1}{4}\text{oz}$. 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 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’s not unknown for a publisher to claim their B-format paperbacks are 197 centimetres high! This is usually a configuration option in the application that manages the publisher’s metadata.

For unknown measurements, simply omit the relevant <Measure> composite. And obviously, don’t provide physical measurements 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 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. And just as the overall height and width are different from the trimmed page size, the 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 extent⁴ 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 or Basis weight), and board weight are known. Allowance might be needed for different grades of paper in any plate section or insert. However, it is recognized that publishers may not always be able to provide this 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 actual an actual weight is known.

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 supply 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 equivalent measurements provided via (for example) EDI messages.

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.

⁴ 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

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

ONIX codelist 48		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 <i>etc</i>)	
11	Unfolded sheet width (of map, poster <i>etc</i>)	
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 (spine) 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.