

Quantitative values

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There are several ways to express quantitative values like eg the height of a building (see also note [Eenheid: oplossingen](#)):

Nr	Example	Comment
1	<pre>{ "@context": { "@vocab": "https://example.com/ns/" }, "length": 90 }</pre>	<ul style="list-style-type: none"> - Unit is not part of the data, so agreement needed on a certain unit eg meters
2	<pre>{ "@context": { "@vocab": "https://example.com/ns/" }, "length": "90 m" }</pre>	<ul style="list-style-type: none"> + Unit is part of the data so several units possible - Agreement needed on used symbols eg ISO2955. - Value and unit in one string, parsing needed.
3	<pre>{ "@context": { "@vocab": "https://example.com/ns/" }, "value": 90, "unit": "m" }</pre>	<ul style="list-style-type: none"> - Unit is part of the data so several units possible but agreement needed on used symbols eg ISO2955. + Value and unit separate, no parsing needed. - Unitvalue is string
4	<pre>{ "@context": { "@vocab": "https://example.com/ns/", "ucum": "https://w3id.org/cdt/" }, "length": { "@value": "90 m", "@type": "ucum:length" } }</pre>	<ul style="list-style-type: none"> + Unit is part of the data so several units possible. + Data is a literal with type ucum:length which implies that ucum is used which in turn implies that ISO2955 symbols is used. - Value and unit in one string, parsing needed. +/- Quantitykind is more or less explicit.
5	<pre>{ "@context": { "@vocab": "https://example.com/ns/", "ucum": "https://w3id.org/cdt/ucum" }, "length": { "value": 90, "unit": { "@value": "m", "@type": "ucum:ucumunit" } } }</pre>	<ul style="list-style-type: none"> + Unit is part of the data so several units possible. + Unit is a literal with type ucum:ucumunit which implies that ucum is used which in turn implies that ISO2955 symbols is used. + Value and unit separate, no parsing needed. - Quantitykind is not explicit. - Unitvalue is string
6	<pre>{ "@context": { "@vocab": "https://example.com/ns/", "qudt": "https://qudt.org/schema/qudt/" }, "length": { "@type": "qudt:QuantityValue", "qudt:value": 90, "qudt:unit": { "@type": "qudt:Unit", "@id": "http://qudt.org/vocab/unit/M" } } }</pre>	<ul style="list-style-type: none"> + Unit is part of the data so several units possible. + Unit is typed as such.. + Unit unequivocally identified by uri. + Value and unit separate, no parsing needed. - Quantitykind is not explicit. + Data is typed (as a QuantityValue).
7	<pre>{ "@context": { "@vocab": "https://example.com/ns/", "qudt": "https://qudt.org/schema/qudt/" }, "length": { "@type": "qudt:Quantity", "qudt:hasQuantityKind": { "@type": "qudt:QuantityKind", "@id": "http://qudt.org/vocab/quantitykind/Length" }, "qudt:quantityValue": { "@type": "qudt:QuantityValue", "qudt:value": 90, "qudt:unit": { "@type": "qudt:Unit", "@id": "http://qudt.org/vocab/unit/M" } } } }</pre>	<ul style="list-style-type: none"> + Unit is part of the data so several units possible. + Unit is typed as such. + Unit unequivocally identified by uri. + Value and unit separate, no parsing needed. + Quantitykind is explicitated unequivocally by uri. + Data is typed (as a Quantity).

8	<pre> } { "@context": { "@vocab": "https://example.com/ns/", "iso": "http://def.isotc211.org/iso19103/2015/MeasureTypes#" }, "length": { "@type": "iso:Length", "iso:Measure.value": 90, "iso:Length.uom": { "@type": "iso:UomLength", "iso:UnitOfMeasure.uomIdentifier": "m" } } } </pre>	<ul style="list-style-type: none"> • + Unit is part of the data so several units possible • + Unit has type iso:Length which implies that iso is used which in turn implies that ISO2955 symbols is used • + Unit is typed (as uomLength). • + Value and unit separate, no parsing needed. • + Data is typed (as Length). • - Unitvalue is string. • - Iso uri's not published.
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