Energistics common Technical Reference Guide

For use with RESQML v2.0.1

Common Technical Architecture	The Energistics common package contains elements that will be shared by all Energistics standards (e.g., RESQML and other MLs in the future) as part of the Energistics Common Technical Architecture.
Version of Standard	2.0
Abstract	This document lists and defines packages, data objects, elements, and relationships for the subset of Energistics common that has been published in support of the current version of RESQML.
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Amendment History			
Version	Date	Comment	Ву
1.0	11 Sept 2015	Publication of this document for the version of Energistics common published to support RESQML v2.0.1.	Energistics
		Note: This is the same version of Energistics common published in support of RESQML v2.0. No changes have been made to the RESQML v2.0 data model; additional data objects have been added to RESQML v2.0.1 that work with the RESQML v2.0 data model. For more information, see the RESQML Technical Usage Guide (for RESQML v2.0.1).	



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1 Introduction

Because Energistics is a standards organization, it has always looked to standardize across its standards. However, much of the work to develop the main standards (WITSML, PRODML and RESQML) began organically, with different groups within traditional domain silos. Different project starts, schedules, development approaches, and maturity levels of the standards have imposed limits on what could be done in the past for consistency across all the standards.

However, more recently, the Energistics Board of Directors and special interest group (SIG) leadership agreed the time was right to begin a coordinate and focused effort for a common Energistics architecture. Since then, a team has been working to develop and deploy a common architecture.

Data objects common across all Energistics standards are in the Energistics common folder (**Figure 1-1**). To accommodate specific needs of the individual domain standards, each of those standards also has its own "common" folder. For more information about the use of Energistics common and RESQML, see the *RESQML Technical Usage Guide* (which is available for download at: http://www.energistics.org/reservoir/resgml-standards/current-standards.

1.1 Energistics Common Technical Architecture (common)

Figure 1-1 shows the packages in the current version of the Energistics common folder that have been published in support of RESQML v2.0.1. Classes and attributes defined in the UML model are converted into XML elements, types, and attributes in the resulting XML schema, from where programmers can use proxy generators to create classes in their development environments. Because behavior is not specifiable in XML, the operations part of the class boxes is not used and the UML model does not hold methods.

Officially, common is part of the Energistics Common Technical Architecture. However, the current version has been released in support of RESQML. All RESQML top-level data objects inherit from RESQML Common, which inherits from Energistics common.

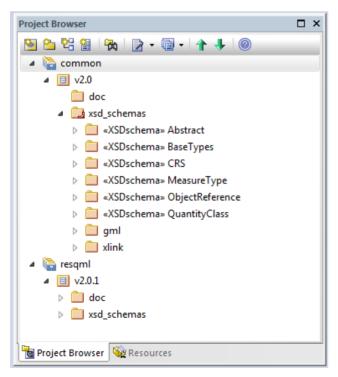


Figure 1-1—Main contents of the Energistics common folder (Energistics Common Technical Architecture).



1.2 Audience, Purpose and Scope

This document:

- Is for information technology (IT) professionals—programmers, developers, architects and others—who are implementing RESQML into a software package.
- Lists and defines all classes, complex types, elements, and associations in the Energistics common XML schemas. Chapters 2-7 are generated from the contents of the common package in the Enterprise Architecture (EA) project.
 - Organization. Each chapter describes one of the main packages that make up the EA project.
 Each chapter is organized by element types and alpha-order within element type.

1.2.1 Audience Assumptions

This guide assumes that the reader has a good general understanding of programming and XML, and a basic understanding of the exploration and production (E&P) subsurface domain and workflow.



2 Abstract

Contains the base XSD types from which all EnergyML data objects are derived.

2.1 AbstractCitedDataObject

Stereotypes: XSDcomplexType

The parent class for all top-level elements in Energistics standards (RESQML, etc.). Inherits from the commonv2 AbstractDataObject. The purpose of this derivation is simply to make the Citation element mandatory. Appropriate to use as a base class in any Energistics standard where this is desired.

2.1.1 Attributes

Name	Data Type	Notes
schemaVersion	string	
uuid	UuidString	
Citation	Citation	
Aliases	ObjectAlias	
CustomData	CustomData	

Derived From: AbstractObject

Derived Classes: <u>VerticalCrs</u>, <u>ProjectedCrs</u>, <u>EpcExternalPartReference</u>

Relationships: None

2.2 AbstractObject

Stereotypes: XSDcomplexType

The intended abstract supertype of all schema roots that may be a member of a substitution group (whether contextual or data). The type of root global elements should be extended from this type and the root global element should be declared to be a member of one of the above substitution groups.

2.2.1 Attributes

Name	Data Type	Notes
schemaVersion	string	The specific version of a schema from which this object is derived. This string should be exactly equivalent to the version attribute of the root element of the associated XSD schema file. In the UML model is the same as the version tagged value of the < <xsdschema>> package.</xsdschema>
uuid	UuidString	
Citation	Citation	
Aliases	ObjectAlias	
CustomData	CustomData	



Name	Data Type	Notes
objectVersion	NameString	

Derived From: (none)

Derived Classes: AbstractDataObject, AbstractContextualObject, AbstractCitedDataObject

Relationships: None

2.3 Citation

Stereotypes: XSDcomplexType

An ISO 19115 EIP-derived set of metadata attached to all specializations of AbstractObject to ensure the traceability of each individual, independent (top-level) element.

2.3.1 Attributes

Name	Data Type	Notes
Title	DescriptionString	One line description/name of the RESQML object. This is the equivalent in ISO 19115 of CI_Citation.title Legacy DCGroup - title
Originator	NameString	Name (or other human-readable identifier) of the person who initially originated the object or RESQML document in the source application. If that information is not available, the user who created the RESQML format file. The originator remains the same as the object is subsequently edited.
		This is the equivalent in ISO 19115 to the CI_Individual.name or the CI_Organization.name of the citedResponsibleParty whose role is "originator". Legacy DCGroup - author
Creation		Date and time the document was created in the source application or, if that information is not available, when it was saved to the RESQML format file.
	dateTime	This is the equivalent of the ISO 19115 CI_Date where the CI_DateTypeCode = "creation"
		The type is the Energistics timestamp datatype which is the W3C xs:dateTime with the optional timezone offset from UTC made mandatory.
		Format:
		YYYY-MM-DDThh:mm:ssZ[+/-]hh:mm
		Legacy DCGroup - created
Format	DescriptionString	Software or service that was used to originate the object and the file format created. Must be human and machine readable and unambiguously identify the software by including the company name, software name and software version. This is the equivalent in ISO 19115 to the distributionFormat.MD_Format.
		The ISO format for this is



Name	Data Type	Notes
		[vendor:applicationName]/fileExtension where the application name includes the version number of the application.
		SIG Implementation Notes
		RESQML
		- Legacy DCGroup from v1.1 - publisher
		- fileExtension is not relevant and will be ignored if present.
		- vendor and applicationName are mandatory.
		Name (or other human-readable identifier) of the last person who updated the object.
Editor	NameString	This is the equivalent in ISO 19115 to the CI_Individual.name or the CI_Organization.name of the citedResponsibleParty whose role is "editor".
		Legacy DCGroup - contributor
VersionString	string	
	dateTime	Date and time the document was last modified in the source application or, if that information is not available, when it was last saved to the RESQML format file.
		This is the equivalent of the ISO 19115 CI_Date where the CI_DateTypeCode = "lastUpdate"
LastUpdate		The type is the Energistics timestamp datatype which is the W3C xs:dateTime with the optional timezone offset from UTC made mandatory.
		Format:
		YYYY-MM-DDThh:mm:ssZ[+/-]hh:mm
		Legacy DCGroup - modified
	CommentString	User descriptive comments about the object. Intended for end-user use (human readable); not necessarily meant to be used by software.
Description		This is the equivalent of the ISO 19115 abstract.CharacterString
		Legacy DCGroup - description
DescriptiveKeywords	CommentString	Key words to describe the activity, for example, history match or volumetric calculations, relevant to this object. Intended to be used in a search function by software.
2000 parenty mondo		This is the equivalent in ISO 19115 of descriptiveKeywords.MD_Keywords
		Legacy DCGroup - subject

Derived From: (none)

Derived Classes: (none)



Relationships: None

2.4 CustomData

Stereotypes: XSDcomplexType

Specify custom element, attributes, and types in the custom data area.

WITSML. Custom or user-defined element and attributes component schema.

Derived From: (none) **Derived Classes**: (none)

2.4.1 Relationships

Role	Class	Cardinality
	CustomDataValue	0*

2.5 ObjectAlias

Stereotypes: XSDcomplexType

2.5.1 Attributes

Name	Data Type	Notes
authority	NameString	
Identifier	nameString	
Description	DescriptionString	

Derived From: (none)

Derived Classes: (none)

Relationships: None

2.6 AbstractContextualObject

Substitution group for contextual objects.

Stereotypes: XSDtopLevelElement

2.7 AbstractDataObject

Substitution group for normative data objects.

Stereotypes: XSDtopLevelElement



3 BaseTypes

Contains the common re-usable structures and types commonly used by EnergyML schemas.

XD Simple type	Description	
TypeEnum	The intended abstract supertype of all enumerated "types". This abstract type allows the maximum length of a type enumeration to be centrally defined. This type should not be used directly except to derive another type. It should also be used for uncontrolled strings that are candidates to become enumerations at a future date.	
String	The intended abstract supertype of all strings. This abstract type allows the control over whitespace for all strings to be defined at a high level. This type should not be used directly except to derive another type.	
	The intended abstract supertype of all locally unique identifiers. The value is not intended to convey any semantic	
UidString	content (e.g., it may be computer generated). The value is only required to be unique within a context in a document (e.g., defined via key and keyref).	
	There is no guarantee that the same data in multiple documents will use the same uid value unless enforced by the source of the document (e.g., a document server). Spaces are not allowed.	
UuidString		
UomEnum	The intended abstract supertype of all "units of measure" (UOM). This abstract type allows the maximum length of a UOM enumeration to be centrally defined. This type is abstract in the sense that it should not be used directly except to derive another type.	
DescriptionString	A textual description of something.	
	The intended abstract supertype of all comments or remarks intended for human consumption.	
CommentString	There should be no assumption that semantics can be extracted from the field by a computer.	
	Neither should there be an assumption that any two humans will interpret the information in the same way (i.e., it may not be interoperable).	
MaximumLengthString	This defines the maximum acceptable length of a string that can be stored in a database.	
NameString	The intended abstract supertype of all user assigned human recognizable contextual name types.	



XD Simple type	Description	
	There should be no assumption that (interoperable) semantic information will be extracted from the name by a third party.	
	This type of value is generally not guaranteed to be unique and is not a candidate to be replaced by an enumeration.	
Measure	The intended abstract supertype of all quantities that have a value with a unit of measure (UOM). The unit of measure is in the uom attribute of the subtypes. This type allows all quantities to be profiled as a 'float' instead of a 'double'.	



4 CRS

Coordinate reference system.

4.1 VerticalDirection

Name	Data Type	Notes
ир	TypeEnum	Values are positive when moving away from the center of the Earth.
down	TypeEnum	Values are positive when moving toward the center of the Earth.

4.2 AxisOrder2d

Defines the coordinate system axis order of the global CRS using the axis names (from the EPSG database).

Name	Data Type	Notes
easting northing	TypeEnum	The first axis is easting and the second axis is northing.
northing easting	TypeEnum	The first axis is northing and the second asis is easting.
westing southing	TypeEnum	The first axis is westing and the second axis is southing.
southing westing	TypeEnum	The first axis is southing and the second axis is westing.
northing westing	TypeEnum	the first axis is northing and the second axis is westing.
westing northing	TypeEnum	the first axis is westing and the second axis is northing.

4.3 AbstractProjectedCrs

Stereotypes: XSDcomplexType

Derived From: (none)

Derived Classes: ProjectedCrsEpsgCode, GmlProjectedCrsDefinition, ProjectedUnknownCrs

Relationships: None

4.4 AbstractVerticalCrs

Stereotypes: XSDcomplexType

Derived From: (none)

Derived Classes: <u>GmlVerticalCrsDefinition</u>, <u>VerticalCrsEpsgCode</u>, <u>VerticalUnknownCrs</u>

Relationships: None

4.5 GmlProjectedCrsDefinition

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.



4.5.1 Attributes

Name	Data Type	Notes
GmlProjectedCrsDefinition	ProjectedCRSType	

Derived From: AbstractProjectedCrs

Derived Classes: (none)

Relationships: None

4.6 GmlVerticalCrsDefinition

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.6.1 Attributes

Name	Data Type	Notes
GmlVerticalCrsDefinition	VerticalCRSType	

Derived From: AbstractVerticalCrs

Derived Classes: (none)

Relationships: None

4.7 ProjectedCrs

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.7.1 Attributes

Name	Data Type	Notes
uom	LengthUom	
AxisOrder	AxisOrder2d	

Derived From: AbstractCitedDataObject

Derived Classes: (none)

4.7.2 Relationships

Role	Class	Cardinality
	<u>AbstractProjectedCrs</u>	11



4.8 ProjectedCrsEpsgCode

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.8.1 Attributes

Name	Data Type	Notes
EpsgCode	positiveInteger	

Derived From: AbstractProjectedCrs

Derived Classes: (none)

Relationships: None

4.9 ProjectedUnknownCrs

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.9.1 Attributes

Name	Data Type	Notes
Unknown	DescriptionString	

Derived From: AbstractProjectedCrs

Derived Classes: (none)

Relationships: None

4.10 VerticalCrs

Stereotypes: XSDcomplexType

4.10.1 Attributes

Name	Data Type	Notes
uom	LengthUom	
Direction	VerticalDirection	

Derived From: AbstractCitedDataObject

Derived Classes: (none)

4.10.2 Relationships

le	Class	Cardinality
----	-------	-------------



Role	Class	Cardinality
	<u>AbstractVerticalCrs</u>	11

4.11 VerticalCrsEpsgCode

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.11.1 Attributes

Name	Data Type	Notes
EpsgCode	positiveInteger	

Derived From: AbstractVerticalCrs

Derived Classes: (none)

Relationships: None

4.12 VerticalUnknownCrs

Stereotypes: XSDcomplexType

This is the Energistics encapsulation of the ProjectedCrs type from GML.

4.12.1 Attributes

Name	Data Type	Notes
Unknown	DescriptionString	

Derived From: AbstractVerticalCrs

Derived Classes: (none)

Relationships: None



5 MeasureType

These types represent numeric quantities with a unit of measure implemented as a uom attribute. The units are gathered into single quantity classes, which represent a group of units. The unit symbols appropriate for the class are captured as enumerated lists. The implementation of this is to develop a type for each uom class that is a union of a standard list, the unknown value, and the Other: extension. Additional files will contain these structures.

For more information, see http://www.energistics.org/asset-data-management/unit-of-measure-standard

5.1 AbsorbedDoseMeasure

Stereotypes: XSDcomplexType

5.1.1 Attributes

Name	Data Type	Notes
uom	AbsorbedDoseUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.2 ActivityOfRadioactivityMeasure

Stereotypes: XSDcomplexType

5.2.1 Attributes

Name	Data Type	Notes
uom	ActivityOfRadioactivityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.3 AmountOfSubstanceMeasure

Stereotypes: XSDcomplexType

5.3.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstanceUom	

Derived From: Measure

Derived Classes: (none)



Relationships: None

5.4 AmountOfSubstancePerAmountOfSubstanceMeasure

Stereotypes: XSDcomplexType

5.4.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstancePerAmountOfSubstanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.5 AmountOfSubstancePerAreaMeasure

Stereotypes: XSDcomplexType

5.5.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstancePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.6 AmountOfSubstancePerTimeMeasure

Stereotypes: XSDcomplexType

5.6.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstancePerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.7 AmountOfSubstancePerTimePerAreaMeasure

Stereotypes: XSDcomplexType



5.7.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstancePerTimePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.8 AmountOfSubstancePerVolumeMeasure

Stereotypes: XSDcomplexType

5.8.1 Attributes

Name	Data Type	Notes
uom	AmountOfSubstancePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.9 AnglePerLengthMeasure

Stereotypes: XSDcomplexType

5.9.1 Attributes

Name	Data Type	Notes
uom	AnglePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.10 AnglePerVolumeMeasure

Stereotypes: XSDcomplexType

5.10.1 Attributes

Name	Data Type	Notes
uom	AnglePerVolumeUom	



Derived From: Measure

Derived Classes: (none)

Relationships: None

5.11 Angular Acceleration Measure

Stereotypes: XSDcomplexType

5.11.1 Attributes

Name	Data Type	Notes
uom	AngularAccelerationUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.12 Angular Velocity Measure

Stereotypes: XSDcomplexType

5.12.1 Attributes

Name	Data Type	Notes
uom	AngularVelocityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.13 APIGammaRayMeasure

Stereotypes: XSDcomplexType

5.13.1 Attributes

Name	Data Type	Notes
uom	APIGammaRayUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None



5.14 APIGravityMeasure

Stereotypes: XSDcomplexType

5.14.1 Attributes

Name	Data Type	Notes
uom	APIGravityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.15 APINeutronMeasure

Stereotypes: XSDcomplexType

5.15.1 Attributes

Name	Data Type	Notes
uom	APINeutronUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.16 AreaMeasure

Stereotypes: XSDcomplexType

5.16.1 Attributes

Name	Data Type	Notes
uom	AreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.17 AreaPerAmountOfSubstanceMeasure

Stereotypes: XSDcomplexType



5.17.1 Attributes

Name	Data Type	Notes
uom	AreaPerAmountOfSubstanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.18 AreaPerAreaMeasure Stereotypes: XSDcomplexType

5.18.1 Attributes

Name	Data Type	Notes
uom	AreaPerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.19 AreaPerMassMeasure

Stereotypes: XSDcomplexType

5.19.1 Attributes

Name	Data Type	Notes
uom	AreaPerMassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.20 AreaPerTimeMeasure Stereotypes: XSDcomplexType

5.20.1 Attributes

Name	Data Type	Notes
uom	AreaPerTimeUom	



Derived From: Measure

Derived Classes: (none)

Relationships: None

5.21 AreaPerVolumeMeasure

Stereotypes: XSDcomplexType

5.21.1 Attributes

Name	Data Type	Notes
uom	AreaPerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.22 AttenuationPerFrequencyIntervalMeasure

Stereotypes: XSDcomplexType

5.22.1 Attributes

Name	Data Type	Notes
uom	AttenuationPerFrequencyIntervalUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.23 CapacitanceMeasure

Stereotypes: XSDcomplexType

5.23.1 Attributes

Name	Data Type	Notes
uom	CapacitanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None



5.24 DataTransferSpeedMeasure

Stereotypes: XSDcomplexType

5.24.1 Attributes

Name	Data Type	Notes
uom	DataTransferSpeedUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.25 DiffusionCoefficientMeasure

Stereotypes: XSDcomplexType

5.25.1 Attributes

Name	Data Type	Notes
uom	DiffusionCoefficientUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.26 DigitalStorageMeasure

Stereotypes: XSDcomplexType

5.26.1 Attributes

Name	Data Type	Notes
uom	DigitalStorageUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.27 DimensionlessMeasure

Stereotypes: XSDcomplexType

5.27.1 Attributes

NI	Data Tama	NI-4
Name	Data Type	Notes



Name	Data Type	Notes
uom	DimensionlessUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.28 DipoleMomentMeasure Stereotypes: XSDcomplexType

5.28.1 Attributes

Name	Data Type	Notes
uom	DipoleMomentUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.29 DoseEquivalentMeasure

Stereotypes: XSDcomplexType

5.29.1 Attributes

Name	Data Type	Notes
uom	DoseEquivalentUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.30 DynamicViscosityMeasure

Stereotypes: XSDcomplexType

5.30.1 Attributes

Name	Data Type	Notes
uom	DynamicViscosityUom	

Derived From: Measure



Derived Classes: (none)

Relationships: None

5.31 ElectricalResistivityMeasure

Stereotypes: XSDcomplexType

5.31.1 Attributes

Name	Data Type	Notes
uom	ElectricalResistivityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.32 ElectricChargeMeasure

Stereotypes: XSDcomplexType

5.32.1 Attributes

Name	Data Type	Notes
uom	ElectricChargeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.33 ElectricChargePerAreaMeasure

Stereotypes: XSDcomplexType

5.33.1 Attributes

Name	Data Type	Notes
uom	ElectricChargePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None



5.34 ElectricChargePerMassMeasure

Stereotypes: XSDcomplexType

5.34.1 Attributes

Name	Data Type	Notes
uom	ElectricChargePerMassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.35 ElectricChargePerVolumeMeasure

Stereotypes: XSDcomplexType

5.35.1 Attributes

Name	Data Type	Notes
uom	ElectricChargePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.36 ElectricConductanceMeasure

Stereotypes: XSDcomplexType

5.36.1 Attributes

Name	Data Type	Notes
uom	ElectricConductanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.37 ElectricConductivityMeasure

Stereotypes: XSDcomplexType

5.37.1 Attributes

Name	Data Type	Notes



Name	Data Type	Notes
uom	ElectricConductivityUom	

Derived Classes: (none)

Relationships: None

5.38 ElectricCurrentDensityMeasure

Stereotypes: XSDcomplexType

5.38.1 Attributes

Name	Data Type	Notes
uom	ElectricCurrentDensityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.39 ElectricCurrentMeasure

Stereotypes: XSDcomplexType

5.39.1 Attributes

Name	Data Type	Notes
uom	ElectricCurrentUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.40 ElectricFieldStrengthMeasure

Stereotypes: XSDcomplexType

5.40.1 Attributes

Name	Data Type	Notes
uom	ElectricFieldStrengthUom	



Relationships: None

5.41 ElectricPotentialDifferenceMeasure

Stereotypes: XSDcomplexType

5.41.1 Attributes

Name	Data Type	Notes
uom	ElectricPotentialDifferenceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.42 ElectricResistanceMeasure

Stereotypes: XSDcomplexType

5.42.1 Attributes

Name	Data Type	Notes
uom	ElectricResistanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.43 ElectricResistancePerLengthMeasure

Stereotypes: XSDcomplexType

5.43.1 Attributes

Name	Data Type	Notes
uom	ElectricResistancePerLengthUom	

Derived From: Measure

Derived Classes: (none)



5.44 ElectromagneticMomentMeasure

Stereotypes: XSDcomplexType

5.44.1 Attributes

Name	Data Type	Notes
uom	ElectromagneticMomentUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.45 EnergyLengthPerAreaMeasure

Stereotypes: XSDcomplexType

5.45.1 Attributes

Name	Data Type	Notes
uom	EnergyLengthPerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.46 EnergyLengthPerTimeAreaTemperatureMeasure

Stereotypes: XSDcomplexType

5.46.1 Attributes

Name	Data Type	Notes
uom	EnergyLengthPerTimeAreaTemperatureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.47 EnergyMeasure

Stereotypes: XSDcomplexType

5.47.1 Attributes

Name	Data Type	Notes	



Name	Data Type	Notes
uom	EnergyUom	

Derived Classes: (none)

Relationships: None

5.48 EnergyPerAreaMeasure

Stereotypes: XSDcomplexType

5.48.1 Attributes

Name	Data Type	Notes
uom	EnergyPerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.49 EnergyPerLengthMeasure

Stereotypes: XSDcomplexType

5.49.1 Attributes

Name	Data Type	Notes
uom	EnergyPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.50 EnergyPerMassMeasure

Stereotypes: XSDcomplexType

5.50.1 Attributes

Name	Data Type	Notes
uom	EnergyPerMassUom	



Relationships: None

5.51 EnergyPerMassPerTimeMeasure

Stereotypes: XSDcomplexType

5.51.1 Attributes

Name	Data Type	Notes
uom	EnergyPerMassPerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.52 EnergyPerVolumeMeasure

Stereotypes: XSDcomplexType

5.52.1 Attributes

Name	Data Type	Notes
uom	EnergyPerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.53 ForceAreaMeasure

Stereotypes: XSDcomplexType

5.53.1 Attributes

Name	Data Type	Notes
uom	ForceAreaUom	

Derived From: Measure

Derived Classes: (none)



5.54 ForceLengthPerLengthMeasure

Stereotypes: XSDcomplexType

5.54.1 Attributes

Name	Data Type	Notes
uom	ForceLengthPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.55 ForceMeasure

Stereotypes: XSDcomplexType

5.55.1 Attributes

Name	Data Type	Notes
uom	ForceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.56 ForcePerForceMeasure

Stereotypes: XSDcomplexType

5.56.1 Attributes

Name	Data Type	Notes
uom	ForcePerForceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.57 ForcePerLengthMeasure

Stereotypes: XSDcomplexType

5.57.1 Attributes

Name	Data Type	Notes	



Name	Data Type	Notes
uom	ForcePerLengthUom	

Derived Classes: (none)

Relationships: None

5.58 ForcePerVolumeMeasure

Stereotypes: XSDcomplexType

5.58.1 Attributes

Name	Data Type	Notes
uom	ForcePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.59 FrequencyIntervalMeasure

Stereotypes: XSDcomplexType

5.59.1 Attributes

Name	Data Type	Notes
uom	FrequencyIntervalUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.60 FrequencyMeasure

Stereotypes: XSDcomplexType

5.60.1 Attributes

Name	Data Type	Notes
uom	FrequencyUom	



Derived Classes: (none)

Relationships: None

5.61 HeatCapacityMeasure Stereotypes: XSDcomplexType

5.61.1 Attributes

Name	Data Type	Notes
uom	HeatCapacityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.62 HeatFlowRateMeasure Stereotypes: XSDcomplexType

5.62.1 Attributes

Name	Data Type	Notes
uom	HeatFlowRateUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.63 HeatTransferCoefficientMeasure

Stereotypes: XSDcomplexType

5.63.1 Attributes

Name	Data Type	Notes
uom	HeatTransferCoefficientUom	

Derived From: Measure

Derived Classes: (none)



5.64 IlluminanceMeasure

Stereotypes: XSDcomplexType

5.64.1 Attributes

Name	Data Type	Notes
uom	IlluminanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.65 InductanceMeasure

Stereotypes: XSDcomplexType

5.65.1 Attributes

Name	Data Type	Notes
uom	InductanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.66 IsothermalCompressibilityMeasure

Stereotypes: XSDcomplexType

5.66.1 Attributes

Name	Data Type	Notes
uom	IsothermalCompressibilityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.67 KinematicViscosityMeasure

Stereotypes: XSDcomplexType

5.67.1 Attributes

Name	Data Type	Notes	



Name	Data Type	Notes
uom	KinematicViscosityUom	

Derived Classes: (none)

Relationships: None

5.68 LengthMeasure

Stereotypes: XSDcomplexType

5.68.1 Attributes

Name	Data Type	Notes
uom	LengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.69 LengthPerLengthMeasure

Stereotypes: XSDcomplexType

5.69.1 Attributes

Name	Data Type	Notes
uom	LengthPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.70 LengthPerMassMeasure

Stereotypes: XSDcomplexType

5.70.1 Attributes

Name	Data Type	Notes
uom	LengthPerMassUom	



Derived Classes: (none)

Relationships: None

5.71 LengthPerPressureMeasure

Stereotypes: XSDcomplexType

5.71.1 Attributes

Name	Data Type	Notes
uom	LengthPerPressureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.72 LengthPerTemperatureMeasure

Stereotypes: XSDcomplexType

5.72.1 Attributes

Name	Data Type	Notes
uom	LengthPerTemperatureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.73 LengthPerTimeMeasure

Stereotypes: XSDcomplexType

5.73.1 Attributes

Name	Data Type	Notes
uom	LengthPerTimeUom	

Derived From: Measure

Derived Classes: (none)



5.74 LengthPerVolumeMeasure

Stereotypes: XSDcomplexType

5.74.1 Attributes

Name	Data Type	Notes
uom	LengthPerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.75 LightExposureMeasure

Stereotypes: XSDcomplexType

5.75.1 Attributes

Name	Data Type	Notes
uom	LightExposureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.76 LinearAccelerationMeasure

Stereotypes: XSDcomplexType

5.76.1 Attributes

Name	Data Type	Notes
uom	LinearAccelerationUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.77 LinearThermalExpansionMeasure

Stereotypes: XSDcomplexType

5.77.1 Attributes



Name	Data Type	Notes
uom	LinearThermalExpansionUom	

Derived Classes: (none)

Relationships: None

5.78 LogarithmicPowerRatioMeasure

Stereotypes: XSDcomplexType

5.78.1 Attributes

Name	Data Type	Notes
uom	LogarithmicPowerRatioUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.79 LogarithmicPowerRatioPerLengthMeasure

Stereotypes: XSDcomplexType

5.79.1 Attributes

Name	Data Type	Notes
uom	LogarithmicPowerRatioPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.80 LuminanceMeasure

Stereotypes: XSDcomplexType

5.80.1 Attributes

Name	Data Type	Notes
uom	LuminanceUom	



Relationships: None

5.81 LuminousEfficacyMeasure

Stereotypes: XSDcomplexType

5.81.1 Attributes

Name	Data Type	Notes
uom	LuminousEfficacyUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.82 LuminousFluxMeasure

Stereotypes: XSDcomplexType

5.82.1 Attributes

Name	Data Type	Notes
uom	LuminousFluxUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.83 LuminousIntensityMeasure

Stereotypes: XSDcomplexType

5.83.1 Attributes

Name	Data Type	Notes
uom	LuminousIntensityUom	

Derived From: Measure

Derived Classes: (none)



5.84 Magnetic Dipole Moment Measure

Stereotypes: XSDcomplexType

5.84.1 Attributes

Name	Data Type	Notes
uom	MagneticDipoleMomentUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.85 MagneticFieldStrengthMeasure

Stereotypes: XSDcomplexType

5.85.1 Attributes

Name	Data Type	Notes
uom	MagneticFieldStrengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.86 MagneticFluxDensityMeasure

Stereotypes: XSDcomplexType

5.86.1 Attributes

Name	Data Type	Notes
uom	MagneticFluxDensityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.87 MagneticFluxDensityPerLengthMeasure

Stereotypes: XSDcomplexType

5.87.1 Attributes

Name	Data Type	Notes



Name	Data Type	Notes
uom	MagneticFluxDensityPerLengthUom	

Derived Classes: (none)

Relationships: None

5.88 MagneticFluxMeasure Stereotypes: XSDcomplexType

5.88.1 Attributes

Name	Data Type	Notes
uom	MagneticFluxUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.89 MagneticPermeabilityMeasure

Stereotypes: XSDcomplexType

5.89.1 Attributes

Name	Data Type	Notes
uom	MagneticPermeabilityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.90 MagneticVectorPotentialMeasure

Stereotypes: XSDcomplexType

5.90.1 Attributes

Name	Data Type	Notes
uom	MagneticVectorPotentialUom	



Relationships: None

5.91 MassLengthMeasure Stereotypes: XSDcomplexType

5.91.1 Attributes

Name	Data Type	Notes
uom	MassLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.92 MassMeasure

Stereotypes: XSDcomplexType

5.92.1 Attributes

Name	Data Type	Notes
uom	MassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.93 MassPerAreaMeasure

Stereotypes: XSDcomplexType

5.93.1 Attributes

Name	Data Type	Notes
uom	MassPerAreaUom	

Derived From: Measure

Derived Classes: (none)



5.94 MassPerEnergyMeasure

Stereotypes: XSDcomplexType

5.94.1 Attributes

Name	Data Type	Notes
uom	MassPerEnergyUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.95 MassPerLengthMeasure

Stereotypes: XSDcomplexType

5.95.1 Attributes

Name	Data Type	Notes
uom	MassPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.96 MassPerMassMeasure

Stereotypes: XSDcomplexType

5.96.1 Attributes

Name	Data Type	Notes
uom	MassPerMassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.97 MassPerTimeMeasure

Stereotypes: XSDcomplexType



5.97.1 Attributes

Name	Data Type	Notes
uom	MassPerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.98 MassPerTimePerAreaMeasure

Stereotypes: XSDcomplexType

5.98.1 Attributes

Name	Data Type	Notes
uom	MassPerTimePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.99 MassPerTimePerLengthMeasure

Stereotypes: XSDcomplexType

5.99.1 Attributes

Name	Data Type	Notes
uom	MassPerTimePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.100 MassPerVolumeMeasure

Stereotypes: XSDcomplexType

5.100.1 Attributes

Name	Data Type	Notes
uom	MassPerVolumeUom	



Derived Classes: (none)

Relationships: None

5.101 MassPerVolumePerLengthMeasure

Stereotypes: XSDcomplexType

5.101.1 Attributes

Name	Data Type	Notes
uom	MassPerVolumePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.102 MobilityMeasure

Stereotypes: XSDcomplexType

5.102.1 Attributes

Name	Data Type	Notes
uom	MobilityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.103 MolarEnergyMeasure

Stereotypes: XSDcomplexType

5.103.1 Attributes

Name	Data Type	Notes
uom	MolarEnergyUom	

Derived From: Measure

Derived Classes: (none)



5.104 MolarHeatCapacityMeasure

Stereotypes: XSDcomplexType

5.104.1 Attributes

Name	Data Type	Notes
uom	MolarHeatCapacityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.105 MolarVolumeMeasure

Stereotypes: XSDcomplexType

5.105.1 Attributes

Name	Data Type	Notes
uom	MolarVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.106 MolecularWeightMeasure

Stereotypes: XSDcomplexType

5.106.1 Attributes

Name	Data Type	Notes
uom	MolecularWeightUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.107 MomentOfForceMeasure

Stereotypes: XSDcomplexType

5.107.1 Attributes

Name	Data Type	Notes
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Name	Data Type	Notes
uom	MomentOfForceUom	

Derived Classes: (none)

Relationships: None

5.108 MomentOfInertiaMeasure

Stereotypes: XSDcomplexType

5.108.1 Attributes

Name	Data Type	Notes
uom	MomentOfInertiaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.109 MomentumMeasure

Stereotypes: XSDcomplexType

5.109.1 Attributes

Name	Data Type	Notes
uom	MomentumUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.110 NormalizedPowerMeasure

Stereotypes: XSDcomplexType

5.110.1 Attributes

Name	Data Type	Notes
uom	NormalizedPowerUom	



Relationships: None

5.111 PermeabilityLengthMeasure

Stereotypes: XSDcomplexType

5.111.1 Attributes

Name	Data Type	Notes
uom	PermeabilityLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.112 PermeabilityRockMeasure

Stereotypes: XSDcomplexType

5.112.1 Attributes

Name	Data Type	Notes
uom	PermeabilityRockUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.113 PermittivityMeasure

Stereotypes: XSDcomplexType

5.113.1 Attributes

Name	Data Type	Notes
uom	PermittivityUom	

Derived From: Measure

Derived Classes: (none)



5.114 PlaneAngleMeasure

Stereotypes: XSDcomplexType

5.114.1 Attributes

Name	Data Type	Notes
uom	PlaneAngleUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.115 PotentialDifferencePerPowerDropMeasure

Stereotypes: XSDcomplexType

5.115.1 Attributes

Name	Data Type	Notes
uom	PotentialDifferencePerPowerDropUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.116 PowerMeasure

Stereotypes: XSDcomplexType

5.116.1 Attributes

Name	Data Type	Notes
uom	PowerUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.117 PowerPerAreaMeasure

Stereotypes: XSDcomplexType

5.117.1 Attributes

Name	Data Type	Notes
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Name	Data Type	Notes
uom	PowerPerAreaUom	

Derived Classes: (none)

Relationships: None

5.118 PowerPerPowerMeasure

Stereotypes: XSDcomplexType

5.118.1 Attributes

Name	Data Type	Notes
uom	PowerPerPowerUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.119 PowerPerVolumeMeasure

Stereotypes: XSDcomplexType

5.119.1 Attributes

Name	Data Type	Notes
uom	PowerPerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.120 PressureMeasure

Stereotypes: XSDcomplexType

5.120.1 Attributes

Name	Data Type	Notes
uom	PressureUom	



Relationships: None

5.121 PressurePerTimeMeasure

Stereotypes: XSDcomplexType

5.121.1 Attributes

Name	Data Type	Notes
uom	PressurePerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.122 PressurePerVolumeMeasure

Stereotypes: XSDcomplexType

5.122.1 Attributes

Name	Data Type	Notes
uom	PressurePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.123 PressureSquaredMeasure

Stereotypes: XSDcomplexType

5.123.1 Attributes

Name	Data Type	Notes
uom	PressureSquaredUom	

Derived From: Measure

Derived Classes: (none)



5.124 PressureSquaredPerForceTimePerAreaMeasure

Stereotypes: XSDcomplexType

5.124.1 Attributes

Name	Data Type	Notes
uom	PressureSquaredPerForceTimePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.125 PressureTimePerVolumeMeasure

Stereotypes: XSDcomplexType

5.125.1 Attributes

Name	Data Type	Notes
uom	PressureTimePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.126 QuantityOfLightMeasure

Stereotypes: XSDcomplexType

5.126.1 Attributes

Name	Data Type	Notes
uom	QuantityOfLightUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.127 RadianceMeasure Stereotypes: XSDcomplexType



5.127.1 Attributes

Name	Data Type	Notes
uom	RadianceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.128 RadiantIntensityMeasure

Stereotypes: XSDcomplexType

5.128.1 Attributes

Name	Data Type	Notes
uom	RadiantIntensityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.129 ReciprocalAreaMeasure

Stereotypes: XSDcomplexType

5.129.1 Attributes

Name	Data Type	Notes
uom	ReciprocalAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.130 ReciprocalElectricPotentialDifferenceMeasure

Stereotypes: XSDcomplexType

5.130.1 Attributes

Name	Data Type	Notes
uom	ReciprocalElectricPotentialDifferenceUom	



Derived Classes: (none)

Relationships: None

5.131 ReciprocalForceMeasure

Stereotypes: XSDcomplexType

5.131.1 Attributes

Name	Data Type	Notes
uom	ReciprocalForceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.132 ReciprocalLengthMeasure

Stereotypes: XSDcomplexType

5.132.1 Attributes

Name	Data Type	Notes
uom	ReciprocalLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.133 ReciprocalMassMeasure

Stereotypes: XSDcomplexType

5.133.1 Attributes

Name	Data Type	Notes
uom	ReciprocalMassUom	

Derived From: Measure

Derived Classes: (none)



5.134 ReciprocalMassTimeMeasure

Stereotypes: XSDcomplexType

5.134.1 Attributes

Name	Data Type	Notes
uom	ReciprocalMassTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.135 ReciprocalPressureMeasure

Stereotypes: XSDcomplexType

5.135.1 Attributes

Name	Data Type	Notes
uom	ReciprocalPressureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.136 ReciprocalTimeMeasure

Stereotypes: XSDcomplexType

5.136.1 Attributes

Name	Data Type	Notes
uom	ReciprocalTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.137 ReciprocalVolumeMeasure

Stereotypes: XSDcomplexType

5.137.1 Attributes

Name	Data Type	Notes



Name	Data Type	Notes
uom	ReciprocalVolumeUom	

Derived Classes: (none)

Relationships: None

5.138 ReluctanceMeasure Stereotypes: XSDcomplexType

5.138.1 Attributes

Name	Data Type	Notes
uom	ReluctanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.139 SecondMomentOfAreaMeasure

Stereotypes: XSDcomplexType

5.139.1 Attributes

Name	Data Type	Notes
uom	SecondMomentOfAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.140 SignalingEventPerTimeMeasure

Stereotypes: XSDcomplexType

5.140.1 Attributes

Name	Data Type	Notes
uom	SignalingEventPerTimeUom	



Relationships: None

5.141 SolidAngleMeasure Stereotypes: XSDcomplexType

5.141.1 Attributes

Name	Data Type	Notes
uom	SolidAngleUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.142 SpecificHeatCapacityMeasure

Stereotypes: XSDcomplexType

5.142.1 Attributes

Name	Data Type	Notes
uom	SpecificHeatCapacityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.143 TemperatureIntervalMeasure

Stereotypes: XSDcomplexType

5.143.1 Attributes

Name	Data Type	Notes
uom	TemperatureIntervalUom	

Derived From: Measure

Derived Classes: (none)



5.144 TemperatureIntervalPerLengthMeasure

Stereotypes: XSDcomplexType

5.144.1 Attributes

Name	Data Type	Notes
uom	TemperatureIntervalPerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.145 TemperatureIntervalPerPressureMeasure

Stereotypes: XSDcomplexType

5.145.1 Attributes

Name	Data Type	Notes
uom	TemperatureIntervalPerPressureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.146 TemperatureIntervalPerTimeMeasure

Stereotypes: XSDcomplexType

5.146.1 Attributes

Naı	me	Data Type	Notes
uom	1	TemperatureIntervalPerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.147 ThermalConductanceMeasure

Stereotypes: XSDcomplexType

5.147.1 Attributes

Name	Data Type	Notes
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Name	Data Type	Notes
uom	ThermalConductanceUom	

Derived Classes: (none)

Relationships: None

5.148 ThermalConductivityMeasure

Stereotypes: XSDcomplexType

5.148.1 Attributes

Name	Data Type	Notes
uom	ThermalConductivityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.149 ThermalDiffusivityMeasure

Stereotypes: XSDcomplexType

5.149.1 Attributes

Name	Data Type	Notes
uom	ThermalDiffusivityUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.150 ThermalInsulanceMeasure

Stereotypes: XSDcomplexType

5.150.1 Attributes

Name	Data Type	Notes
uom	ThermalInsulanceUom	



Relationships: None

5.151 ThermalResistanceMeasure

Stereotypes: XSDcomplexType

5.151.1 Attributes

Name	Data Type	Notes
uom	ThermalResistanceUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.152 ThermodynamicTemperatureMeasure

Stereotypes: XSDcomplexType

5.152.1 Attributes

Name	Data Type	Notes
uom	ThermodynamicTemperatureUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.153 TimeMeasure

Stereotypes: XSDcomplexType

5.153.1 Attributes

Name	Data Type	Notes
uom	TimeUom	

Derived From: Measure

Derived Classes: (none)



5.154 TimePerLengthMeasure

Stereotypes: XSDcomplexType

5.154.1 Attributes

Name	Data Type	Notes
uom	TimePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.155 TimePerMassMeasure

Stereotypes: XSDcomplexType

5.155.1 Attributes

Name	Data Type	Notes
uom	TimePerMassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.156 TimePerTimeMeasure

Stereotypes: XSDcomplexType

5.156.1 Attributes

Name	Data Type	Notes
uom	TimePerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.157 TimePerVolumeMeasure

Stereotypes: XSDcomplexType

5.157.1 Attributes

Name	Data Type	Notes
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Name	Data Type	Notes
uom	TimePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.158 VolumeFlowRatePerVolumeFlowRateMeasure

Stereotypes: XSDcomplexType

5.158.1 Attributes

Name	Data Type	Notes
uom	VolumeFlowRatePerVolumeFlowRateUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.159 VolumeMeasure

Stereotypes: XSDcomplexType

5.159.1 Attributes

Name	Data Type	Notes
uom	VolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.160 VolumePerAreaMeasure

Stereotypes: XSDcomplexType

5.160.1 Attributes

Name	Data Type	Notes
uom	VolumePerAreaUom	

Derived From: Measure



Derived Classes: (none)

Relationships: None

5.161 VolumePerLengthMeasure

Stereotypes: XSDcomplexType

5.161.1 Attributes

Name	Data Type	Notes
uom	VolumePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.162 VolumePerMassMeasure

Stereotypes: XSDcomplexType

5.162.1 Attributes

Name	Data Type	Notes
uom	VolumePerMassUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.163 VolumePerPressureMeasure

Stereotypes: XSDcomplexType

5.163.1 Attributes

Name	Data Type	Notes
uom	VolumePerPressureUom	

Derived From: Measure

Derived Classes: (none)



5.164 VolumePerRotationMeasure

Stereotypes: XSDcomplexType

5.164.1 Attributes

Name	Data Type	Notes
uom	VolumePerRotationUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.165 VolumePerTimeLengthMeasure

Stereotypes: XSDcomplexType

5.165.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimeLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.166 VolumePerTimeMeasure

Stereotypes: XSDcomplexType

5.166.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.167 VolumePerTimePerAreaMeasure

Stereotypes: XSDcomplexType



5.167.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerAreaUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.168 VolumePerTimePerLengthMeasure

Stereotypes: XSDcomplexType

5.168.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.169 VolumePerTimePerPressureLengthMeasure

Stereotypes: XSDcomplexType

5.169.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerPressureLengthUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.170 VolumePerTimePerPressureMeasure

Stereotypes: XSDcomplexType

5.170.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerPressureUom	



Derived From: Measure

Derived Classes: (none)

Relationships: None

5.171 VolumePerTimePerTimeMeasure

Stereotypes: XSDcomplexType

5.171.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerTimeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.172 VolumePerTimePerVolumeMeasure

Stereotypes: XSDcomplexType

5.172.1 Attributes

Name	Data Type	Notes
uom	VolumePerTimePerVolumeUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.173 VolumePerVolumeMeasure

Stereotypes: XSDcomplexType

5.173.1 Attributes

Name	Data Type	Notes
uom	VolumePerVolumeUom	

Derived From: Measure

Derived Classes: (none)



5.174 VolumetricHeatTransferCoefficientMeasure

Stereotypes: XSDcomplexType

5.174.1 Attributes

Name	Data Type	Notes
uom	VolumetricHeatTransferCoefficientUom	

Derived From: Measure

Derived Classes: (none)

Relationships: None

5.175 VolumetricThermalExpansionMeasure

Stereotypes: XSDcomplexType

5.175.1 Attributes

Name	Data Type	Notes
uom	VolumetricThermalExpansionUom	

Derived From: Measure

Derived Classes: (none)



6 ObjectReference

This package contains the types and elements to allow an EnergyML data object to refer to another EnergyML data object (i.e. external references).

6.1 DataObjectReference

Stereotypes: XSDcomplexType

Used for Energistics data objects only.

6.1.1 Attributes

Name	Data Type	Notes
ContentType	string	The content type of the referenced element.
Title	DescriptionString	The title of the referenced element.
UUID	UuidString	Reference to a data object using its global UID.
UuidAuthority	string	The authority that issued and maintains the uuid of the referenced object. Used mainly in alias context.
VersionString	NameString	Indicates the version of the data object that is referenced.

Derived From: (none)

Derived Classes: (none)

Relationships: None

6.2 EpcExternalPartReference

Stereotypes: XSDcomplexType,XSDtopLevelElement

It defines a proxy for an external part of the Energistics package. It must be used at least for external HDF parts. For more information, see the Energistics Packaging Conventions Specification.

6.2.1 Attributes

Name	Data Type	Notes
MimeType	string	IAMF registered, if one exists, or a free text field. Needs documentation on seismic especially. MIME type for HDF proxy is : application/x-hdf5 (by RESQML convention).

Derived From: AbstractCitedDataObject

Derived Classes: (none)



6.3 Hdf5Dataset

Stereotypes: XSDcomplexType

Energistics standards can use HDF5 datasets for more efficient storage of large datasets.

6.3.1 Attributes

Name	Data Type	Notes
		The path of the referenced dataset in the HDF file.
PathInHdfFile	string	The separator between groups and final dataset is a slash '/'

Derived From: (none)

Derived Classes: (none)

6.3.2 Relationships

Role	Class	Cardinality
HdfProxy	<u>EpcExternalPartReference</u>	11



7 QuantityClass

This file defines a set of standard units of measure for various quantity classes for the Energistics Unit of Measure Standard. The units list is based on the previous POSC units list.

The enumerated lists do not contain any deprecated units.

For more information, see http://www.energistics.org/asset-data-management/unit-of-measure-standard.

7.1 PowerPerVolumeUom

Name	Data Type	Notes
kW/m3	string	kilowatt per cubic metre
hp/ft3	string	horsepower per cubic foot
W/m3	string	watt per cubic metre
uW/m3	string	microwatt per cubic metre
Btu[IT]/(s.ft3)	string	(BTU per second) per cubic foot
Btu[IT]/(h.ft3)	string	BTU per hour cubic foot
cal[th]/(s.cm3)	string	calorie per second cubic centimetre
cal[th]/(h.cm3)	string	calorie per hour cubic centimetre

7.2 PowerPerPowerUom

Name	Data Type	Notes
W/kW	string	watt per kilowatt
ww	string	watt per watt
Euc	string	euclid
%	string	percent
Btu[IT]/(hp.h)	string	BTU per horsepower hour

7.3 PowerUom

Name	Data Type	Notes
mW	string	milliwatt
nW	string	nanowatt
kW	string	kilowatt
MW	string	megawatt
pW	string	picowatt



Name	Data Type	Notes
uW	string	microwatt
W	string	watt
tonRefrig	string	ton-refrigeration
TW	string	terawatt
EW	string	exawatt
fW	string	femtowatt
cW	string	centiwatt
dW	string	deciwatt
GW	string	gigawatt
hp[hyd]	string	hydraulic-horsepower
hp[metric]	string	metric-horsepower
hp	string	horsepower
hp[elec]	string	electric-horsepower

7.4 PressurePerVolumeUom

Name	Data Type	Notes
psi2.d/(cP.ft3)	string	psi squared day per centipoise cubic foot
Pa/m3	string	pascal per cubic metre

7.5 PressurePerTimeUom

Name	Data Type	Notes
Pa/s	string	pascal per second
Pa/h	string	pascal per hour
psi/min	string	psi per minute
psi/h	string	psi per hour
MPa/h	string	megapascal per hour
bar/h	string	bar per hour
atm/h	string	standard atmosphere per hour
kPa/min	string	kilopascal per min
kPa/h	string	kilopascal per hour



7.6 PowerPerAreaUom

Name	Data Type	Notes
ucal[th]/(s.cm2)	string	millionth of calorie per second square centimetre
mW/m2	string	milliwatt per square metre
kW/m2	string	kilowatt per square metre
W/mm2	string	watt per square millimetre
W/m2	string	watt per square metre
W/cm2	string	watt per square centimetre
cal[th]/(h.cm2)	string	calorie per hour square centimetre
Btu[IT]/(s.ft2)	string	BTU per second square foot
Btu[IT]/(h.ft2)	string	(BTU per hour) per square foot
kW/cm2	string	kilowatt per square centimetre
hp[hyd]/in2	string	hydraulic-horsepower per square inch
hp/in2	string	horsepower per square inch

7.7 PermeabilityRockUom

Name	Data Type	Notes
mD	string	millidarcy
TD[API]	string	teradarcy-API
D	string	darcy
D[API]	string	darcy-API

7.8 PermeabilityLengthUom

, ,		
Name	Data Type	Notes
mD.m	string	millidarcy metre
TD[API].m	string	teradarcy-API metre
mD.ft	string	millidarcy foot
D.ft	string	darcy foot
D.m	string	darcy metre



7.9 PermittivityUom

Name	Data Type	Notes
uF/m	string	microfarad per metre
F/m	string	farad per metre

7.10 PotentialDifferencePerPowerDropUom

Name	Data Type	Notes
V/dB	string	volt per decibel
V/B	string	volt per bel

7.11 PlaneAngleUom

Name	Data Type	Notes
mrad	string	milliradian
Mrad	string	megaradian
mina	string	angular minute
rad	string	radian
urad	string	microradian
seca	string	angular second
rev	string	revolution
cgr	string	centesimal-minute
ccgr	string	centesimal-second
0.001 seca	string	angular millisecond
dega	string	angular degree
mila	string	angular mil
krad	string	kiloradian
gon	string	gon

7.12 ReciprocalAreaUom

Name	Data Type	Notes
1/m2	string	per square metre
1/mi2	string	per square mile



Name	Data Type	Notes
1/ft2	string	per square foot
1/km2	string	per square kilometre

7.13 RadiantIntensityUom

Name	Data Type	Notes
W/sr	string	watt per steradian

7.14 ReciprocalElectricPotentialDifferenceUom

Name	Data Type	Notes
1/V	string	per volt
1/uV	string	per microvolt

7.15 ReciprocalLengthUom

Name	Data Type	Notes
1/mm	string	per millimetre
1/mi	string	per mile
1/nm	string	per nanometre
1E-9 1/ft	string	per thousand million foot
1/yd	string	per yard
1/cm	string	per centimetre
1/angstrom	string	per angstrom
1/ft	string	per foot
1/m	string	per metre
1/in	string	per inch

7.16 ReciprocalForceUom

Name	Data Type	Notes
1/N	string	per Newton
1/lbf	string	per pound-force



7.17 RadianceUom

Name	Data Type	Notes
W/(m2.sr)	string	watt per square metre steradian

7.18 PressureSquaredUom

Name	Data Type	Notes
kpsi2	string	(thousand psi) squared
Pa2	string	pascal squared
psi2	string	psi squared
bar2	string	bar squared
GPa2	string	gigapascal squared
kPa2	string	kilopascal squared

7.19 PressureSquaredPerForceTimePerAreaUom

Name	Data Type	Notes
Pa2/(Pa.s)	string	pascal squared per pascal second
psi2/cP	string	psi squared per centipoise
kPa2/cP	string	kilopascal squared per centipoise
0.001 kPa2/cP	string	kilopascal squared per thousand centipoise
bar2/cP	string	bar squared per centipoise

7.20 PressureTimePerVolumeUom

Name	Data Type	Notes
psi.d/bbl	string	psi day per barrel
Pa.s/m3	string	pascal second per cubic metre

7.21 QuantityOfLightUom

Name	Data Type	Notes
lm.s	string	lumen second

7.22 PressureUom

Name	Data Type	Notes
N/m2	string	newton per square metre



Name	Data Type	Notes
Mpsi	string	million psi
N/mm2	string	newton per square millimetre
Pa	string	pascal
nPa	string	nanopascal
mbar	string	thousandth of bar
lbf/ft2	string	pound-force per square foot
mmHg[0degC]	string	millimetres of Mercury at 0 deg C
MPa	string	megapascal
mPa	string	millipascal
рРа	string	picopascal
ubar	string	millionth of bar
TPa	string	terapascal
umHg[0degC]	string	micrometre of mercury at 0 degree Celsius
upsi	string	millionth of psi
uPa	string	micropascal
tonf[UK]/ft2	string	UK ton-force per square foot
psi	string	pound-force per square inch
tonf[US]/ft2	string	US ton-force per square foot
torr	string	torr
tonf[US]/in2	string	US ton-force per square inch
kpsi	string	thousand psi
dPa	string	decipascal
сРа	string	centipascal
dyne/cm2	string	dyne per square centimetre
fPa	string	femtopascal
EPa	string	exapascal
at	string	technical atmosphere
0.01 lbf/ft2	string	pound-force per hundred square foot



Name	Data Type	Notes
atm	string	standard atmosphere
cmH2O[4degC]	string	centimetre of water at 4 degree Celsius
bar	string	bar
GPa	string	gigapascal
kgf/m2	string	thousand gram-force per square metre
kgf/cm2	string	thousand gram-force per square centimetre
kgf/mm2	string	thousand gram-force per square millimetre
kPa	string	kilopascal
kN/m2	string	kilonewton per square metre
inH2O[39degF]	string	inch of water at 39.2 degree Fahrenheit
hbar	string	hundred bar
inH2O[60degF]	string	inch of water at 60 degree Fahrenheit
inHg[60degF]	string	inch of mercury at 60 degree Fahrenheit
inHg[32degF]	string	inch of mercury at 32 degree Fahrenheit

7.23 MassPerTimePerAreaUom

Name	Data Type	Notes
lbm/(ft2.h)	string	pound-mass per square foot hour
lbm/(ft2.s)	string	pound-mass per square foot second
MPa.s/m	string	megapascal second per metre
kPa.s/m	string	kilopascal second per metre
g.ft/(cm3.s)	string	gram foot per cubic centimetre second
g.m/(cm3.s)	string	gram metre per cubic centimetre second
kg/(m2.s)	string	kilogram per square metre second

7.24 MassPerMassUom

Name	Data Type	Notes
ng/mg	string	nanogram per milligram
ppk	string	part per thousand
mg/kg	string	milligram per kilogram



Name	Data Type	Notes
ng/g	string	nanogram per gram
ug/g	string	microgram per gram
ug/mg	string	microgram per milligram
ppm	string	part per million
ppm[mass]	string	part per million [mass basis]
mg/g	string	milligram per gram
Euc	string	euclid
g/kg	string	gram per kilogram
%	string	percent
%[mass]	string	percent [mass basis]
kg/sack[94lbm]	string	kilogram per 94-pound-sack
kg/t	string	kilogram per tonne
g/t	string	gram per tonne
kg/kg	string	kilogram per kilogram

7.25 MassPerTimePerLengthUom

Name	Data Type	Notes
lbm/(ft.s)	string	pound-mass per second foot
Pa.s	string	pascal second
kg/(m.s)	string	kilogram per metre second
lbm/(ft.h)	string	pound-mass per hour foot

7.26 MassPerVolumePerLengthUom

Name	Data Type	Notes
lbm/(gal[US].ft)	string	pound-mass per US gallon foot
lbm/ft4	string	pound-mass per foot to the fourth power
Pa.s2/m3	string	pascal second squared per cubic metre
lbm/(gal[UK].ft)	string	pound-mass per UK gallon foot
g/cm4	string	gram per centimetre to the fourth power
kg/dm4	string	kilogram per decimetre to the fourth power



Name	Data Type	Notes
kg/m4	string	kilogram per metre to the fourth power

7.27 MassPerTimeUom

Name	Data Type	Notes
t/h	string	tonne per hour
t/min	string	tonne per minute
ton[UK]/a	string	UK ton-mass per julian-year
Mg/min	string	megagram per minute
t/a	string	tonne per julian-year
t/d	string	tonne per day
ton[UK]/d	string	UK ton-mass per day
ton[US]/d	string	US ton-mass per day
ton[US]/h	string	US ton-mass per hour
ton[US]/min	string	US ton-mass per minute
ton[UK]/h	string	UK ton-mass per hour
ton[UK]/min	string	UK ton-mass per minute
ton[US]/a	string	US ton-mass per julian-year
kg/h	string	kilogram per hour
kg/min	string	kilogram per min
kg/s	string	kilogram per second
1E6 lbm/a	string	million pound-mass per julian-year
g/s	string	gram per second
kg/d	string	kilogram per day
lbm/d	string	pound-mass per day
Mg/a	string	megagram per julian-year
Mg/d	string	megagram per day
Mg/h	string	megagram per hour
lbm/h	string	pound-mass per hour
lbm/min	string	pound-mass per minute
		•



Name	Data Type	Notes
lbm/s	string	pound-mass per second

7.28 MassPerLengthUom

Name	Data Type	Notes
lbm/ft	string	pound-mass per foot
Mg/in	string	megagram per inch
klbm/in	string	thousand pound-mass per inch
kg.m/cm2	string	kilogram metre per square centimetre
kg/m	string	kilogram per metre

7.29 MagneticVectorPotentialUom

Name	Data Type	Notes
Wb/mm	string	weber per millimetre
Wb/m	string	weber per metre

7.30 MagneticPermeabilityUom

Name	Data Type	Notes
uH/m	string	microhenry per metre
H/m	string	henry per metre

7.31 MassLengthUom

Name	Data Type	Notes
lbm.ft	string	pound-mass foot
kg.m	string	kilogram metre

7.32 MassPerEnergyUom

Name	Data Type	Notes
lbm/(hp.h)	string	pound-mass per horsepower hour
mg/J	string	milligram per joule
kg/MJ	string	kilogram per megajoule
kg/(kW.h)	string	kilogram per kilowatt hour



Name	Data Type	Notes
kg/J	string	kilogram per joule

7.33 MassPerAreaUom

Name	Data Type	Notes
Mg/m2	string	megagram per square metre
ton[US]/ft2	string	US ton-mass per square foot
lbm/ft2	string	pound-mass per square foot
0.01 lbm/ft2	string	pound-mass per hundred square foot
kg/m2	string	kilogram per square metre

7.34 MomentOfForceUom

Name	Data Type	Notes
N.m	string	newton metre
lbm.ft2/s2	string	pound-mass square foot per second squared
lbf.in	string	inch pound-force
tonf[US].mi	string	US ton-force mile
tonf[US].ft	string	US ton-force foot
pdl.ft	string	foot poundal
lbf.ft	string	foot pound-force
dN.m	string	decinewton metre
daN.m	string	dekanewton metre
1000 lbf.ft	string	thousand foot pound-force
kN.m	string	kilonewton metre
kgf.m	string	thousand gram-force metre
J	string	joule

7.35 MolecularWeightUom

Name	Data Type	Notes
lbm/lbmol	string	pound-mass per pound-mole
kg/mol	string	kilogram per mole



Name	Data Type	Notes
g/mol	string	gram per mole

7.36 MomentOfInertiaUom

Name	Data Type	Notes
lbm.ft2	string	pound-mass square foot
kg.m2	string	kilogram square metre

7.37 NormalizedPowerUom

Name	Data Type	Notes
dB.MW	string	decibel megawatt
dB.W	string	decibel watt
B.W	string	bel watt
dB.mW	string	decibel milliwatt

7.38 MomentumUom

Name	Data Type	Notes
lbm.ft/s	string	foot pound-mass per second
kg.m/s	string	kilogram metre per second

7.39 MolarVolumeUom

Name	Data Type	Notes
L/mol	string	litre per gram-mole
m3/kmol	string	cubic metre per kilogram-mole
m3/mol	string	cubic metre per gram-mole
dm3/kmol	string	cubic decimetre per kilogram-mole
ft3/lbmol	string	cubic foot per pound-mass-mole
L/kmol	string	litre per kilogram-mole

7.40 MassUom

Name	Data Type	Notes
ng	string	nanogram



Data Type	Notes
string	ounce-mass
string	troy ounce-mass
string	pound-mass
string	megagram
string	milligram
string	picogram
string	UK ton-mass
string	US ton-mass
string	microgram
string	94 pound-mass sack
string	tonne
string	teragram
string	UK hundredweight
string	US hundredweight
string	exagram
string	attogram
string	centigram
string	carat
string	femtogram
string	hectogram
string	kilogram
string	thousand pound-mass
string	gram
string	gigagram
string	grain
	string

7.41 MassPerVolumeUom

Name	Data Type	Notes
lbm/gal[UK]	string	pound-mass per UK gallon



Name	Data Type	Notes
lbm/gal[US]	string	pound-mass per US gallon
lbm/in3	string	pound-mass per cubic inch
lbm/ft3	string	pound-mass per cubic foot
kg/L	string	kilogram per litre
kg/m3	string	kilogram per cubic metre
lbm/bbl	string	pound-mass per barrel
Mg/m3	string	megagram per cubic metre
t/m3	string	tonne per cubic metre
ug/cm3	string	microgram per cubic centimetre
mg/m3	string	milligram per cubic metre
mg/dm3	string	milligram per cubic decimetre
mg/gal[US]	string	milligram per US gallon
mg/L	string	milligram per litre
kg/dm3	string	kilogram per cubic decimetre
0.1 lbm/bbl	string	pound-mass per ten barrel
10 Mg/m3	string	ten thousand kilogram per cubic metre
g/cm3	string	gram per cubic centimetre
0.01 grain/ft3	string	grain per hundred cubic foot
0.001 lbm/bbl	string	pound-mass per thousand barrel
0.001 lbm/gal[UK]	string	pound-mass per thousand UK gallon
0.001 lbm/gal[US]	string	pound-mass per thousand US gallon
g/m3	string	gram per cubic metre
grain/ft3	string	grain per cubic foot
grain/gal[US]	string	grain per US gallon
g/L	string	gram per litre
g/dm3	string	gram per cubic decimetre
g/gal[UK]	string	gram per UK gallon
g/gal[US]	string	gram per US gallon



7.42 MobilityUom

Name	Data Type	Notes
mD/(Pa.s)	string	millidarcy per pascal second
mD/cP	string	millidarcy per centipoise
TD[API]/(Pa.s)	string	teradarcy-API per pascal second
mD.in2/(lbf.s)	string	millidarcy square inch per pound-force second
D/(Pa.s)	string	darcy per pascal second
D/cP	string	darcy per centipoise
mD.ft2/(lbf.s)	string	millidarcy square foot per pound-force second

7.43 MolarHeatCapacityUom

Name	Data Type	Notes
J/(mol.deltaK)	string	joule per gram-mole delta kelvin
kJ/(kmol.deltaK)	string	kilojoule per kilogram-mole delta kelvin
Btu[IT]/(lbmol.deltaF)	string	BTU per pound-mass-mole delta Fahrenheit
cal[th]/(mol.deltaC)	string	calorie per gram-mole delta Celsius

7.44 MolarEnergyUom

Name	Data Type	Notes
kJ/kmol	string	kilojoule per kilogram-mole
MJ/kmol	string	megajoule per kilogram-mole
kcal[th]/mol	string	thousand calorie per gram-mole
Btu[IT]/lbmol	string	BTU per pound-mass-mole
J/mol	string	joule per gram-mole

7.45 VolumePerMassUom

Name	Data Type	Notes
L/kg	string	litre per kilogram
L/t	string	litre per tonne
gal[US]/ton[US]	string	US gallon per US ton-mass
gal[US]/sack[94lbm]	string	US gallon per 94-pound-sack



Name	Data Type	Notes
gal[US]/ton[UK]	string	US gallon per UK ton-mass
L/ton[UK]	string	litre per UK ton-mass
m3/ton[UK]	string	cubic metre per UK ton-mass
m3/ton[US]	string	cubic metre per US ton-mass
m3/t	string	cubic metre per tonne
m3/g	string	cubic metre per gram
m3/kg	string	cubic metre per kilogram
cm3/g	string	cubic centimetre per gram
dm3/kg	string	cubic decimetre per kilogram
bbl/ton[US]	string	barrel per US ton-mass
0.01 L/kg	string	litre per hundred kilogram
bbl/ton[UK]	string	barrel per UK ton-mass
dm3/t	string	cubic decimetre per ton
gal[UK]/lbm	string	UK gallon per pound-mass
gal[US]/lbm	string	US gallon per pound-mass
ft3/sack[94lbm]	string	cubic foot per 94-pound-sack
ft3/kg	string	cubic foot per kilogram
ft3/lbm	string	cubic foot per pound-mass

7.46 VolumePerLengthUom

Name	Data Type	Notes
gal[US]/mi	string	US gallon per mile
gal[US]/ft	string	US gallon per foot
gal[UK]/mi	string	UK gallon per mile
in3/ft	string	cubic inch per foot
m3/m	string	cubic metre per metre
m3/km	string	cubic metre per kilometre
L/m	string	litre per metre
bbl/ft	string	barrel per foot



Name	Data Type	Notes
0.01 L/km	string	litre per hundred kilometre
0.01 dm3/km	string	cubic decimetre per hundred kilometre
bbl/in	string	barrel per inch
ft3/ft	string	cubic foot per foot
dm3/m	string	cubic decimetre per metre
bbl/mi	string	barrel per mile

7.47 VolumePerPressureUom

Name	Data Type	Notes
m3/Pa	string	cubic metre per Pascal
m3/kPa	string	cubic metre per kilopascal
bbl/psi	string	barrel per psi

7.48 VolumePerTimeLengthUom

Name	Data Type	Notes
m4/s	string	metre to the fourth power per second
1000 m4/d	string	thousand (cubic metre per day) metre
1000 bbl.ft/d	string	thousand barrel foot per day

7.49 VolumePerRotationUom

Name	Data Type	Notes
m3/rev	string	cubic metre per revolution
m3/rad	string	cubic metre per radian
ft3/rad	string	cubic foot per radian

7.50 VolumePerAreaUom

Name	Data Type	Notes
ft3/ft2	string	cubic foot per square foot
m3/m2	string	cubic metre per square metre
1E6 bbl/acre	string	million barrel per acre
bbl/acre	string	barrel per acre



7.51 TimePerVolumeUom

Name	Data Type	Notes
s/L	string	second per litre
s/ft3	string	second per cubic foot
s/m3	string	second per cubic metre
s/qt[US]	string	second per US quart
s/qt[UK]	string	second per UK quart
h/m3	string	hour per cubic metre
d/bbl	string	day per barrel
0.001 d/ft3	string	day per thousand cubic foot
d/ft3	string	day per cubic foot
h/ft3	string	hour per cubic foot
d/m3	string	day per cubic metre

7.52 TimePerTimeUom

Name	Data Type	Notes
ms/s	string	millisecond per second
s/s	string	second per second
%	string	percent
Euc	string	euclid

7.53 TimeUom

Name	Data Type	Notes
min	string	minute
ms	string	millisecond
na	string	nanojulian-year
hs	string	hectosecond
ka[t]	string	thousand tropical-year
Ma[t]	string	million tropical-year
Ta[t]	string	million million tropical-year
us	string	microsecond



Name	Data Type	Notes
wk	string	week
ns	string	nanosecond
ps	string	picosecond
s	string	second
a[t]	string	tropical-year
са	string	hundredth of julian-year
cs	string	centisecond
1/2 ms	string	half of millisecond
100 ka[t]	string	hundred thousand tropical-year
а	string	julian-year
fa	string	femtojulian-year
Ga[t]	string	thousand million tropical-year
h	string	hour
d	string	day
ds	string	decisecond
Ea[t]	string	million million tropical-year

7.54 VolumeFlowRatePerVolumeFlowRateUom

Name	Data Type	Notes
(m3/s)/(m3/s)	string	(cubic metre per second) per (cubic metre per second)
1E6 (ft3/d)/(bbl/d)	string	(million cubic foot per day) per (barrel per day)
Euc	string	euclid
%	string	percent
(bbl/d)/(bbl/d)	string	(barrel per day) per (barrel per day)
(m3/d)/(m3/d)	string	(cubic metre per day) per (cubic metre per day)

7.55 VerticalCoordinateUom

The units of measure that are valid for vertical gravity based coordinates (i.e., elevation or vertical depth).

Name	Data Type	Notes
m	string	meter



Name	Data Type	Notes
ft	string	International Foot
ftUS	string	US Survey Foot
ftBr(65)	string	British Foot 1865

7.56 VolumePerVolumeUom

Name	Data Type	Notes
Euc	string	euclid
dm3/m3	string	cubic decimetre per cubic metre
ft3/bbl	string	cubic foot per barrel
gal[UK]/ft3	string	UK gallon per cubic foot
ft3/ft3	string	cubic foot per cubic foot
cm3/m3	string	cubic centimetre per cubic metre
bbl/m3	string	barrel per cubic metre
bbl/ft3	string	barrel per cubic foot
cEuc	string	centieuclid
cm3/L	string	cubic centimetre per litre
cm3/cm3	string	cubic centimetre per cubic centimetre
gal[US]/bbl	string	US gallon per barrel
mL/mL	string	millilitre per millilitre
mL/gal[US]	string	millilitre per US gallon
ppk	string	part per thousand
ppm[vol]	string	part per million [volume basis]
ppm	string	part per million
mL/gal[UK]	string	millilitre per UK gallon
L/m3	string	litre per cubic metre
gal[US]/ft3	string	US gallon per cubic foot
m3/(ha.m)	string	cubic metre per hectare metre
m3/m3	string	cubic metre per cubic metre
m3/bbl	string	cubic metre per barrel



Name	Data Type	Notes
bbl/bbl	string	barrel per barrel
0.001 gal[US]/ft3	string	US gallon per thousand cubic foot
0.001 gal[US]/bbl	string	US gallon per thousand barrel
0.001 gal[US]/gal[US]	string	US gallon per thousand US gallon
0.01 bbl/bbl	string	barrel per hundred barrel
0.001 pt[UK]/bbl	string	UK pint per thousand barrel
0.001 gal[UK]/gal[UK]	string	UK gallon per thousand UK gallon
%[vol]	string	percent [volume basis]
%	string	percent
0.001 bbl/ft3	string	barrel per thousand cubic foot
0.001 gal[UK]/bbl	string	UK gallon per thousand barrel
0.001 bbl/m3	string	barrel per thousand cubic metre
0.1 gal[US]/bbl	string	US gallon per ten barrel
1E-6 bbl/m3	string	barrel per million cubic metre
1E-6 bbl/ft3	string	barrel per million cubic foot
1E6 ft3/(acre.ft)	string	million cubic foot per acre foot
bbl/(acre.ft)	string	barrel per acre foot
1E6 ft3/bbl	string	million cubic foot per barrel
1E6 bbl/(acre.ft)	string	million barrel per acre foot
0.1 pt[US]/bbl	string	US pint per ten barrel
0.1 L/bbl	string	litre per ten barrel
1000 ft3/bbl	string	thousand cubic foot per barrel
1E-6 acre.ft/bbl	string	acre foot per million barrel
1000 m3/m3	string	thousand cubic metre per cubic metre

7.57 VolumePerTimeUom

Name	Data Type	Notes
gal[UK]/min	string	UK gallon per minute
gal[UK]/h	string	UK gallon per hour



Name	Data Type	Notes
gal[US]/h	string	US gallon per hour
gal[US]/d	string	US gallon per day
ft3/min	string	cubic foot per minute
ft3/h	string	cubic foot per hour
gal[UK]/d	string	UK gallon per day
ft3/s	string	cubic foot per second
m3/h	string	cubic metre per hour
m3/d	string	cubic metre per day
m3/s	string	cubic metre per second
m3/min	string	cubic metre per minute
L/h	string	litre per hour
gal[US]/min	string	US gallon per minute
L/s	string	litre per second
L/min	string	litre per minute
1E6 bbl/d	string	million barrel per day
1000 m3/h	string	thousand cubic metre per hour
1E6 m3/d	string	million cubic metre per day
1E6 ft3/d	string	million cubic foot per day
1000 bbl/d	string	thousand barrel per day
1/30 cm3/min	string	cubic centimetre per thirty minute
1000 m3/d	string	thousand cubic metre per day
1000 ft3/d	string	thousand cubic foot per day
cm3/s	string	cubic centimetre per second
cm3/min	string	cubic centimetre per minute
ft3/d	string	cubic foot per day
dm3/s	string	cubic decimetre per second
bbl/h	string	barrel per hour
bbl/d	string	barrel per day



Name	Data Type	Notes
cm3/h	string	cubic centimetre per hour
bbl/min	string	barrel per minute

7.58 VolumetricHeatTransferCoefficientUom

Name	Data Type	Notes
kW/(m3.deltaK)	string	killowatt per cubic metre delta kelvin
W/(m3.deltaK)	string	watt per cubic metre delta kelvin
Btu[IT]/(h.ft3.deltaF)	string	BTU per hour cubic foot delta Fahrenheit
Btu[IT]/(s.ft3.deltaF)	string	(BTU per second) per cubic foot delta Fahrenheit

7.59 VolumeUom

Name	Data Type	Notes
km3	string	cubic kilometre
in3	string	cubic inch
m3	string	cubic metre
L	string	litre
hL	string	hectolitre
gal[UK]	string	UK gallon
ft3	string	cubic foot
ha.m	string	hectare metre
gal[US]	string	US gallon
qt[US]	string	US quart
qt[UK]	string	UK quart
yd3	string	cubic yard
um2.m	string	square micrometre metre
pt[US]	string	US pint
mL	string	millilitre
mi3	string	cubic mile
pt[UK]	string	UK pint
mm3	string	cubic millimetre



Name	Data Type	Notes
1E6 bbl	string	million barrel
1E12 ft3	string	million million cubic foot
1E-6 gal[US]	string	millionth of US gallon
1E6 ft3	string	million cubic foot
1000 m3	string	thousand cubic metre
1000 ft3	string	thousand cubic foot
1000 bbl	string	thousand barrel
1000 gal[US]	string	thousand US gallon
1000 gal[UK]	string	thousand UK gallon
dm3	string	cubic decimetre
cm3	string	cubic centimetre
floz[US]	string	US fluid-ounce
floz[UK]	string	UK fluid-ounce
bbl	string	barrel
1E9 bbl	string	thousand million barrel
1E6 m3	string	million cubic metre
acre.ft	string	acre foot
1E9 ft3	string	thousand million cubic foot

7.60 VolumetricThermalExpansionUom

Name	Data Type	Notes
m3/(m3.deltaK)	string	cubic metre per cubic metre delta kelvin
1E-6 m3/(m3.deltaF)	string	(cubic metre per million cubic metre) per delta Fahrenheit
ppm[vol]/deltaF	string	(part per million [volume basis)] per delta Fahrenheit
ppm[vol]/deltaC	string	(part per million [volume basis]) per delta Celsius
1E-6 m3/(m3.deltaC)	string	(cubic metre per million cubic metre) per delta Celsius
1/deltaF	string	per delta Fahrenheit
1/deltaC	string	per delta Celsius
1/deltaR	string	per delta Rankine



Name	Data Type	Notes
1/deltaK	string	per delta kelvin

7.61 VolumePerTimePerVolumeUom

Name	Data Type	Notes
m3/(s.m3)	string	cubic metre per time cubic metre
bbl/(d.acre.ft)	string	barrel per day acre foot

7.62 VolumePerTimePerLengthUom

Name	Data Type	Notes
gal[US]/(min.ft)	string	US gallon per minute foot
gal[US]/(h.in)	string	US gallon per hour inch
gal[US]/(h.ft)	string	US gallon per hour foot
m3/(d.m)	string	(cubic metre per day) per metre
m3/(s.m)	string	cubic metre per second metre
m3/(s.ft)	string	(cubic metre per second) per foot
m3/(h.m)	string	(cubic metre per hour) per metre
gal[UK]/(min.ft)	string	UK gallon per minute foot
1000 m3/(h.m)	string	(thousand cubic metre per hour) per metre
1000 m3/(d.m)	string	(thousand cubic metre per day) per metre
1000 ft3/(d.ft)	string	(thousand cubic foot per day) per foot
bbl/(d.ft)	string	barrel per day foot
gal[UK]/(h.in)	string	UK gallon per hour inch
gal[UK]/(h.ft)	string	UK gallon per hour foot
ft3/(d.ft)	string	(cubic foot per day) per foot

7.63 VolumePerTimePerAreaUom

Name	Data Type	Notes
gal[US]/(h.in2)	string	US gallon per hour square inch
gal[US]/(h.ft2)	string	US gallon per hour square foot
m3/(s.m2)	string	cubic metre per second square metre



Name	Data Type	Notes
gal[US]/(min.ft2)	string	US gallon per minute square foot
gal[UK]/(min.ft2)	string	UK gallon per minute square foot
ft3/(s.ft2)	string	cubic foot per second square foot
ft3/(min.ft2)	string	cubic foot per minute square foot
gal[UK]/(h.in2)	string	UK gallon per hour square inch
gal[UK]/(h.ft2)	string	UK gallon per hour square foot

7.64 VolumePerTimePerPressureLengthUom

Name	Data Type	Notes
m2/(kPa.d)	string	square metre per kilopascal day
m2/(Pa.s)	string	square metre per pascal second
bbl/(ft.psi.d)	string	barrel per day foot psi
ft3/(ft.psi.d)	string	cubic foot per day foot psi

7.65 VolumePerTimePerTimeUom

Name	Data Type	Notes
gal[US]/h2	string	(US gallon per hour) per hour
gal[UK]/min2	string	(UK gallon per minute) per minute
gal[UK]/h2	string	(UK gallon per hour) per hour
gal[US]/min2	string	(US gallon per minute) per minute
m3/s2	string	cubic metre per second squared
m3/d2	string	(cubic metre per day) per day
L/s2	string	(litre per second) per second
dm3/s2	string	(cubic decimetre per second) per second
bbl/h2	string	(barrel per hour) per hour
bbl/d2	string	(barrel per day) per day
ft3/d2	string	(cubic foot per day) per day
ft3/s2	string	(cubic foot per second) per second
ft3/min2	string	(cubic foot per minute) per minute
ft3/h2	string	(cubic foot per hour) per hour



7.66 VolumePerTimePerPressureUom

Name	Data Type	Notes
m3/(kPa.d)	string	(cubic metre per day) per kilopascal
m3/(bar.min)	string	(cubic metre per minute) per bar
m3/(kPa.h)	string	(cubic metre per hour) per kilopascal
m3/(psi.d)	string	(cubic metre per day) per psi
m3/(Pa.s)	string	cubic metre per pascal second
m3/(bar.h)	string	(cubic metre per hour) per bar
bbl/(kPa.d)	string	(barrel per day) per kilopascal
1000 ft3/(psi.d)	string	(thousand cubic foot per day) per psi
bbl/(psi.d)	string	(barrel per day) per psi
m3/(bar.d)	string	(cubic metre per day) per bar
L/(bar.min)	string	(litre per minute) per bar

7.67 SignalingEventPerTimeUom

Name	Data Type	Notes
Bd	string	baud

7.68 SecondMomentOfAreaUom

Name	Data Type	Notes
m4	string	metre to the fourth power
in4	string	inch to the fourth power
cm4	string	centimetre to the fourth power

7.69 SolidAngleUom

Name	Data Type	Notes
sr	string	steradian

7.70 TemperatureIntervalPerLengthUom

Name	Data Type	Notes
deltaF/m	string	delta Fahrenheit per metre
deltaF/ft	string	delta Fahrenheit per foot



Name	Data Type	Notes
deltaK/m	string	delta kelvin per metre
deltaK/km	string	delta kelvin per kilometre
deltaC/m	string	delta Celsius per metre
deltaC/ft	string	delta Celsius per foot
0.01 deltaF/ft	string	delta Fahrenheit per hundred foot
deltaC/km	string	delta Celsius per kilometre
deltaC/hm	string	delta Celsius per hectometre

7.71 SpecificHeatCapacityUom

Name	Data Type	Notes
kcal[th]/(kg.deltaC)	string	thousand calorie per kilogram delta Celsius
J/(kg.deltaK)	string	joule per kilogram delta kelvin
kW.h/(kg.deltaC)	string	kilowatt hour per kilogram delta Celsius
kJ/(kg.deltaK)	string	kilojoule per kilogram delta kelvin
Btu[IT]/(lbm.deltaR)	string	BTU per pound-mass delta Rankine
Btu[IT]/(lbm.deltaF)	string	BTU per pound-mass delta Fahrenheit
J/(g.deltaK)	string	joule per gram delta kelvin
cal[th]/(g.deltaK)	string	calorie per gram delta kelvin

7.72 ReluctanceUom

Name	Data Type	Notes
1/H	string	per henry

7.73 ReciprocalMassUom

Name	Data Type	Notes
1/lbm	string	per pound
1/kg	string	per kilogram
1/g	string	per gram

7.74 ReciprocalMassTimeUom

Name	Data Type	Notes



Name	Data Type	Notes
pCi/g	string	picocurie per gram
Bq/kg	string	becquerel per kilogram
1/(kg.s)	string	per (kilogram per second)

7.75 ReciprocalPressureUom

Name	Data Type	Notes
1/pPa	string	per picopascal
1/psi	string	per psi
1/upsi	string	per millionth of psi
1/bar	string	per bar
1/kPa	string	per kilopascal
1/Pa	string	per pascal

7.76 ReciprocalVolumeUom

Name	Data Type	Notes
1/gal[US]	string	per US gallon
1/L	string	per litre
1/m3	string	per cubic metre
1/bbl	string	per barrel
1/ft3	string	per cubic foot
1/gal[UK]	string	per UK gallon

7.77 ReciprocalTimeUom

Name	Data Type	Notes
1/s	string	per second
1/ms	string	per millisecond
1/wk	string	per week
1/us	string	per microsecond
1/d	string	per day
1/a	string	per julian-year



Name	Data Type	Notes
1/min	string	per minute
1/h	string	per hour

7.78 ThermalResistanceUom

Name	Data Type	Notes
deltaK/W	string	delta kelvin per watt

7.79 ThermalInsulanceUom

Name	Data Type	Notes
deltaK.m2/kW	string	delta kelvin square metre per kilowatt
deltaK.m2/W	string	delta kelvin square metre per watt
deltaC.m2.h/kcal[th]	string	delta Celsius square metre hour per thousand calory
deltaF.ft2.h/Btu[IT]	string	delta Fahrenheit square foot hour per BTU

7.80 ThermodynamicTemperatureUom

Name	Data Type	Notes
degR	string	degree Rankine
К	string	degree kelvin
degC	string	degree Celsius
degF	string	degree Fahrenheit

7.81 TimePerMassUom

Name	Data Type	Notes
s/kg	string	second per kilogram

7.82 TimePerLengthUom

Name	Data Type	Notes
s/ft	string	second per foot
s/in	string	second per inch
ns/m	string	nanosecond per metre
s/cm	string	second per centimetre



Name	Data Type	Notes
us/in	string	microsecond per inch
us/m	string	microsecond per metre
s/m	string	second per metre
us/ft	string	microsecond per foot
ns/ft	string	nanosecond per foot
min/ft	string	minute per foot
min/m	string	minute per metre
0.001 h/ft	string	hour per thousand foot
h/km	string	hour per kilometre
ms/in	string	millisecond per inch
ms/m	string	millisecond per metre
ms/cm	string	millisecond per centimetre
ms/ft	string	millisecond per foot

7.83 ThermalDiffusivityUom

Name	Data Type	Notes
m2/h	string	square metre per hour
m2/s	string	square metre per second
mm2/s	string	square millimetre per second
in2/s	string	square inch per second
cm2/s	string	square centimetre per second
ft2/h	string	square foot per hour
ft2/s	string	square foot per second

7.84 TemperatureIntervalPerTimeUom

Name	Data Type	Notes
deltaF/min	string	delta Fahrenheit per minute
deltaF/s	string	delta Fahrenheit per second
deltaK/s	string	delta kelvin per second
deltaF/h	string	delta Fahrenheit per hour



Name	Data Type	Notes
deltaC/h	string	delta Celsius per hour
deltaC/min	string	delta Celsius per minute
deltaC/s	string	delta Celsius per second

7.85 TemperatureIntervalPerPressureUom

Name	Data Type	Notes
deltaK/Pa	string	delta kelvin per Pascal
deltaF/psi	string	delta Fahrenheit per psi
deltaC/kPa	string	delta Celsius per kilopascal

7.86 TemperatureIntervalUom

Name	Data Type	Notes
deltaK	string	delta kelvin
deltaR	string	delta Rankine
deltaC	string	delta Celsius
deltaF	string	delta Fahrenheit

7.87 ThermalConductivityUom

Name	Data Type	Notes
kcal[th]/(h.m.deltaC)	string	thousand calorie per hour metre delta Celsius
W/(m.deltaK)	string	watt per metre delta kelvin
cal[th]/(s.cm.deltaC)	string	calorie per second centimetre delta Celsius
Btu[IT]/(h.ft.deltaF)	string	BTU per hour foot delta Fahrenheit
cal[th]/(h.cm.deltaC)	string	calorie per hour centimetre delta Celsius

7.88 ThermalConductanceUom

Name	Data Type	Notes
W/deltaK	string	watt per delta kelvin

7.89 DynamicViscosityUom

Name Data Type Notes	
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Name	Data Type	Notes
nP	string	nanopoise
Р	string	poise
N.s/m2	string	newton second per square metre
MP	string	megapoise
mPa.s	string	millipascal second
ТР	string	terapoise
uP	string	micropoise
psi.s	string	psi second
Pa.s	string	pascal second
рР	string	picopoise
mP	string	millipoise
EP	string	exapoise
fP	string	femtopoise
dyne.s/cm2	string	dyne second per square centimetre
сР	string	centipoise
dP	string	decipoise
lbf.s/ft2	string	pound-force second per square foot
lbf.s/in2	string	pound-force second per square inch
kP	string	kilopoise
GP	string	gigapoise
kgf.s/m2	string	thousand gram-force second per square metre

7.90 DoseEquivalentUom

Name	Data Type	Notes
rem	string	rem
Sv	string	sievert
mrem	string	thousandth of rem
mSv	string	millisievert



7.91 ElectricalResistivityUom

Name	Data Type	Notes
ohm.cm	string	ohm centimetre
ohm.m	string	ohm metre
ohm.m2/m	string	ohm square metre per metre
kohm.m	string	kiloohm metre
nohm.mil2/ft	string	nanoohm square mil per foot
nohm.mm2/m	string	nanoohm square milimetre per metre

7.92 ElectricChargePerMassUom

Name	Data Type	Notes
C/kg	string	coulomb per kilogram
C/g	string	coulomb per gram
A.s/kg	string	ampere second per kilogram

7.93 ElectricChargePerAreaUom

Name	Data Type	Notes
C/mm2	string	coulomb per square millimetre
mC/m2	string	millicoulomb per square metre
C/cm2	string	coulomb per square centimetre
C/m2	string	coulomb per square metre

7.94 DipoleMomentUom

Name	Data Type	Notes
C.m	string	coulomb metre

7.95 DataTransferSpeedUom

Name	Data Type	Notes
byte/s	string	byte per second
bit/s	string	bit per second

7.96 CapacitanceUom

Name	Data Type	Notes



Name	Data Type	Notes
nF	string	nanofarad
MF	string	megafarad
mF	string	millifarad
uF	string	microfarad
TF	string	terafarad
pF	string	picofarad
kF	string	kilofarad
EF	string	exafarad
dF	string	decifarad
cF	string	centifarad
GF	string	gigafarad
fF	string	femtofarad
F	string	farad

7.97 DiffusionCoefficientUom

Name	Data Type	Notes
m2/s	string	square metre per second

7.98 DimensionlessUom

Name	Data Type	Notes
nEuc	string	nanoeuclid
pEuc	string	picoeuclid
MEuc	string	megaeuclid
mEuc	string	millieuclid
TEuc	string	teraeuclid
uEuc	string	microeuclid
ppk	string	part per thousand
ppm	string	part per million
dEuc	string	decieuclid
EEuc	string	exaeuclid



Name	Data Type	Notes
%	string	percent
cEuc	string	centieuclid
GEuc	string	gigaeuclid
kEuc	string	kiloeuclid
Euc	string	euclid
fEuc	string	femtoeuclid

7.99 DigitalStorageUom

Name	Data Type	Notes
Kibyte	string	kibibyte
Mibyte	string	mebibyte
bit	string	bit
byte	string	byte

7.100 ElectricPotentialDifferenceUom

Name	Data Type	Notes
pV	string	picovolt
nV	string	nanovolt
MV	string	megavolt
V	string	volt
uV	string	microvolt
TV	string	teravolt
fV	string	femtovolt
dV	string	decivolt
cV	string	centivolt
mV	string	millivolt
kV	string	kilovolt
GV	string	gigavolt



7.101 ElectricFieldStrengthUom

Name	Data Type	Notes
uV/m	string	microvolt per metre
V/m	string	volt per metre
uV/ft	string	microvolt per foot
mV/ft	string	millivolt per foot
mV/m	string	millivolt per metre

7.102 ElectricResistancePerLengthUom

Name	Data Type	Notes
uohm/m	string	microhm per metre
uohm/ft	string	microhm per foot
ohm/m	string	ohm per metre

7.103 ElectromagneticMomentUom

Name	Data Type	Notes
A.m2	string	ampere square metre

7.104 ElectricResistanceUom

Name	Data Type	Notes
ohm	string	ohm
nohm	string	nanoohm
mohm	string	milliohm
uohm	string	microohm
Tohm	string	teraohm
pohm	string	picoohm
Mohm	string	megohm
Eohm	string	exaohm
dohm	string	deciohm
cohm	string	centiohm
kohm	string	kilohm



Name	Data Type	Notes
Gohm	string	gigaohm
fohm	string	femtoohm

7.105 ElectricCurrentUom

Name	Data Type	Notes
nA	string	nanoampere
mA	string	milliampere
MA	string	megaampere
uA	string	microampere
ТА	string	teraampere
рА	string	picoampere
kA	string	kiloampere
dA	string	deciampere
cA	string	centiampere
А	string	ampere
GA	string	gigaampere
fA	string	femtoampere
EA	string	exaampere

7.106 ElectricChargeUom

Name	Data Type	Notes
mC	string	millicoulomb
MC	string	megacoulomb
kC	string	kilocoulomb
nC	string	nanocoulomb
uC	string	microcoulomb
TC	string	teracoulomb
pC	string	picocoulomb
GC	string	gigacoulomb
С	string	coulomb



Name	Data Type	Notes
A.s	string	ampere second
A.h	string	ampere hour
cC	string	centicoulomb
fC	string	femtocoulomb
EC	string	exacoulomb
dC	string	decicoulomb

7.107 ElectricChargePerVolumeUom

Name	Data Type	Notes
C/m3	string	coulomb per cubic metre
C/mm3	string	coulomb per cubic millimetre
A.s/m3	string	ampere second per cubic metre
C/cm3	string	coulomb per cubic centimetre

7.108 ElectricConductanceUom

Name	Data Type	Notes
pS	string	picosiemens
nS	string	nanosiemens
MS	string	megasiemens
uS	string	microsiemens
TS	string	terasiemens
S	string	siemens
mS	string	millisiemens
ES	string	exasiemens
dS	string	decisiemens
cS	string	centisiemens
kS	string	kilosiemens
GS	string	gigasiemens
fS	string	femtosiemens



7.109 ElectricCurrentDensityUom

Name	Data Type	Notes
mA/ft2	string	milliampere per square foot
mA/cm2	string	milliampere per square centimetre
uA/in2	string	microampere per square inch
uA/cm2	string	microampere per square centimetre
A/ft2	string	ampere per square foot
A/cm2	string	ampere per square centimetre
A/mm2	string	ampere per square millimetre
A/m2	string	ampere per square metre

7.110 ElectricConductivityUom

Name	Data Type	Notes
mS/m	string	millisiemens per metre
S/m	string	siemens per metre
kS/m	string	kilosiemens per metre
mS/cm	string	millisiemens per centimetre

7.111 AmountOfSubstanceUom

Name	Data Type	Notes
mol	string	gram-mole
umol	string	microgram-mole
mmol	string	milligram-mole
kmol	string	kilogram-mole
Ibmol	string	pound-mass-mole

7.112 AmountOfSubstancePerVolumeUom

Name	Data Type	Notes
lbmol/gal[US]	string	pound-mass-mole per US gallon
mol/m3	string	gram-mole per cubic metre
lbmol/gal[UK]	string	pound-mass-mole per UK gallon



Name	Data Type	Notes
kmol/m3	string	kilogram-mole per cubic metre
lbmol/ft3	string	pound-mass-mole per cubic foot

7.113 AnglePerLengthUom

Name	Data Type	Notes
rad/m	string	radian per metre
rad/ft	string	radian per foot
rev/m	string	revolution per metre
rev/ft	string	revolution per foot
dega/m	string	angular degree per metre
1/30 dega/ft	string	angular degree per thirty foot
0.01 dega/ft	string	angular degree per hundred foot
dega/ft	string	angular degree per foot
1/30 dega/m	string	angular degree per thirty metre

7.114 Angular Acceleration Uom

Name	Data Type	Notes
rpm/s	string	(revolution per minute) per second
rad/s2	string	radian per second squared

7.115 AnglePerVolumeUom

Name	Data Type	Notes
rad/m3	string	radian per cubic metre
rad/ft3	string	radian per cubic foot

7.116 AmountOfSubstancePerTimeUom

Name	Data Type	Notes
lbmol/s	string	pound-mass-mole per second
mol/s	string	gram-mole per second
lbmol/h	string	pound-mass-mole per hour
kmol/h	string	kilogram-mole per hour



Name	Data Type	Notes
kmol/s	string	kilogram-mole per second

7.117 ActivityOfRadioactivityUom

Name	Data Type	Notes
pCi	string	picocurie
nCi	string	nanocurie
uCi	string	millionth of curie
TBq	string	terabecquerel
mCi	string	thousandth of curie
Ci	string	curie
Bq	string	becquerel
MBq	string	megabecquerel
GBq	string	gigabecquerel

7.118 AbsorbedDoseUom

Name	Data Type	Notes
mrd	string	thousandth of rad
nGy	string	nanogray
nrd	string	nanorad
mGy	string	milligray
MGy	string	megagray
Mrd	string	million rad
pGy	string	picogray
Trd	string	million million rad
uGy	string	microgray
urd	string	millionth of rad
prd	string	picorad
rd	string	rad
TGy	string	teragray
drd	string	tenth of rad



Name	Data Type	Notes
EGy	string	exagray
Erd	string	million million rad
сGy	string	centigray
crd	string	hundredth of rad
dGy	string	decigray
fGy	string	femtogray
Gy	string	gray
kGy	string	kilogray
krd	string	thousand rad
frd	string	femtorad
GGy	string	gigagray
Grd	string	thousand million rad

7.119 AmountOfSubstancePerAmountOfSubstanceUom

Name	Data Type	Notes
nEuc	string	nanoeuclid
ppk	string	part per thousand
ppm	string	part per million
mol/mol	string	mole per mole
%	string	percent
%[molar]	string	percent [molar basis]
Euc	string	euclid

7.120 AmountOfSubstancePerTimePerAreaUom

Name	Data Type	Notes
mol/(s.m2)	string	gram-mole per second square metre
lbmol/(s.ft2)	string	pound-mass-mole per second square foot
lbmol/(h.ft2)	string	pound-mass-mole per hour square foot



7.121 AmountOfSubstancePerAreaUom

Name	Data Type	Notes
mol/m2	string	gram-mole per square metre

7.122 AreaPerTimeUom

Name	Data Type	Notes
m2/h	string	square metre per hour
m2/d	string	square metre per day
mm2/s	string	square millimetre per second
m2/s	string	square metre per second
ft2/h	string	square foot per hour
cm2/s	string	square centimetre per second
in2/s	string	square inch per second
ft2/s	string	square foot per second

7.123 AreaPerMassUom

Name	Data Type	Notes
m2/g	string	square metre per gram
m2/kg	string	square metre per kilogram
cm2/g	string	square centimetre per gram
ft2/lbm	string	square foot per pound-mass

7.124 AreaPerVolumeUom

Name	Data Type	Notes
ft2/in3	string	square foot per cubic inch
m2/cm3	string	square metre per cubic centimetre
m2/m3	string	square metre per cubic metre
1/m	string	per metre
b/cm3	string	barn per cubic centimetre
cu	string	capture unit



7.125 AttenuationPerFrequencyIntervalUom

Name	Data Type	Notes
dB/O	string	decibel per octave
В/О	string	bel per octave

7.126 AreaUom

Name	Data Type	Notes
mi2	string	square mile
mi[US]2	string	square US survey mile
m2	string	square metre
mm2	string	square millimetre
yd2	string	square yard
um2	string	square micrometre
section	string	section
cm2	string	square centimetre
b	string	barn
acre	string	acre
ft2	string	square foot
km2	string	square kilometre
in2	string	square inch
ha	string	hectare

7.127 AreaPerAreaUom

Name	Data Type	Notes
in2/in2	string	square inch per square inch
in2/ft2	string	square inch per square foot
mm2/mm2	string	square millimetre per square millimetre
m2/m2	string	square metre per square metre
%[area]	string	percent [area basis]
%	string	percent
Euc	string	euclid



Name	Data Type	Notes
cEuc	string	centieuclid

7.128 APIGammaRayUom

Name	Data Type	Notes
gAPI	string	API gamma ray unit

7.129 Angular Velocity Uom

Name	Data Type	Notes
rad/s	string	radian per second
rev/s	string	revolution per second
rpm	string	revolution per minute
dega/h	string	angular degree per hour
dega/min	string	angular degree per minute
dega/s	string	angular degree per second

7.130 APIGravityUom

Name	Data Type	Notes
dAPI	string	API gravity unit

7.131 AreaPerAmountOfSubstanceUom

Name	Data Type	Notes
m2/mol	string	square metre per gram-mole

7.132 APINeutronUom

Name	Data Type	Notes
nAPI	string	API neutron unit

7.133 LengthUom

Name	Data Type	Notes
link[Se]	string	British link [Sears 1922]
link[SeT]	string	British link [Sears 1922 truncated]
link[Cla]	string	Clarke link



Name	Data Type	Notes
link[BnA]	string	British link [Benoit 1895 A]
link[BnB]	string	British link [Benoit 1895 B]
mi	string	mile
mi[naut]	string	international nautical mile
m[Ger]	string	German legal metre
link[US]	string	US survey link
m	string	metre
fur[US]	string	furlong US survey
Gm	string	gigametre
ft[US]	string	US survey foot
ft[Se]	string	British foot [Sears 1922]
ft[SeT]	string	British foot [Sears 1922 truncated]
km	string	kilometre
link	string	link
in[US]	string	US survey inch
hm	string	hectometre
in	string	inch
mi[nautUK]	string	United Kingdom nautical mile
yd[Ind]	string	Indian yard
yd[Ind37]	string	Indian yard [1937]
yd[Cla]	string	Clarke yard
yd[BnA]	string	British yard [Benoit 1895 A]
yd[BnB]	string	British yard [Benoit 1895 B]
yd[SeT]	string	British yard [Sears 1922 truncated]
yd[US]	string	US survey yard
yd[Se]	string	British yard [Sears 1922]
yd[Ind62]	string	Indian yard [1962]
yd[Ind75]	string	Indian yard [1975]



Name	Data Type	Notes
Mm	string	megametre
nm	string	nanometre
mm	string	millimetre
mi[US]	string	US survey mile
mil	string	mil
um	string	micrometre
yd	string	yard
Tm	string	terametre
pm	string	picometre
rod[US]	string	rod US Survey
ft[Ind75]	string	indian foot [1975]
1000 ft	string	thousand foot
30 ft	string	thirty foot
100 km	string	100 kilometre
10 km	string	10 kilometre
100 ft	string	hundred foot
chain[BnA]	string	British chain [Benoit 1895 A]
chain[BnB]	string	British chain [Benoit 1895 B]
chain	string	chain
30 m	string	thirty metres
angstrom	string	angstrom
0.1 yd	string	tenth of yard
1/16 in	string	sixteenth of inch
0.1 in	string	tenth of inch
0.1 ft	string	tenth of foot
0.1 ft[US]	string	tenth of US survey foot
10 ft	string	ten foot
10 in	string	ten inch



Name	Data Type	Notes
1/64 in	string	sixty-fourth of inch
1/2 ft	string	half of Foot
1/32 in	string	thirty-second of inch
chain[Cla]	string	Clarke chain
ft[Br36]	string	British foot [1936]
ft[Br65]	string	British foot [1865]
ft[BnB]	string	British foot [Benoit 1895 B]
ft	string	foot
ft[BnA]	string	British foot [Benoit 1895 A]
ft[Ind37]	string	indian foot [1937]
ft[Ind62]	string	indian foot]1962]
ft[Ind]	string	indian foot
ft[Cla]	string	Clarke foot
ft[GC]	string	Gold Coast foot
chain[US]	string	US survey chain
cm	string	centimetre
chain[SeT]	string	British chain [Sears 1922 truncated]
chain[Ind37]	string	Indian Chain [1937]
chain[Se]	string	British chain [Sears 1922]
fathom	string	international fathom
fm	string	femtometre
Em	string	exametre
dam	string	dekametre
dm	string	decimetre

7.134 LengthPerVolumeUom

Name	Data Type	Notes
m/m3	string	metre per cubic metre
km/L	string	kilometre per litre



Name	Data Type	Notes
mi/gal[US]	string	mile per US gallon
mi/gal[UK]	string	mile per UK gallon
ft/ft3	string	foot per cubic foot
ft/bbl	string	foot per barrel
km/dm3	string	kilometre per cubic decimetre
ft/gal[US]	string	foot per US gallon

7.135 LightExposureUom

Name	Data Type	Notes
lx.s	string	lux second
footcandle.s	string	footcandle second

7.136 LinearThermalExpansionUom

Name	Data Type	Notes
m/(m.deltaK)	string	metre per metre delta kelvin
mm/(mm.deltaK)	string	millimetre per millimetre delta kelvin
1/deltaK	string	per delta kelvin
in/(in.deltaF)	string	inch per inch delta Fahrenheit

7.137 LinearAccelerationUom

Name	Data Type	Notes
m/s2	string	metre per second squared
in/s2	string	inch per second squared
mgn	string	thousandth of gravity
mGal	string	milligalileo
ft/s2	string	foot per second squared
cm/s2	string	centimetre per square second
gn	string	gravity
Gal	string	galileo



7.138 LengthPerTimeUom

Name	Data Type	Notes
m/h	string	metre per hour
m/min	string	metre per minute
m/ms	string	metre per millisecond
m/d	string	metre per day
km/h	string	kilometre per hour
km/s	string	kilometre per second
knot	string	knot
mm/s	string	millimetre per second
nm/s	string	nanometre per second
um/s	string	micrometre per second
mm/a	string	millimetre per julian-year
m/s	string	metre per second
mi/h	string	mile per hour
mil/a	string	mil per julian-year
dm/s	string	decimetre per second
ft/d	string	foot per day
ft/h	string	foot per hour
cm/s	string	centimetre per second
1000 ft/h	string	thousand foot per hour
1000 ft/s	string	thousand foot per second
cm/a	string	centimetre per julian-year
in/a	string	inch per julian-year
in/min	string	inch per minute
in/s	string	inch per second
ft/us	string	foot per microsecond
ft/min	string	foot per minute
ft/ms	string	foot per millisecond
ft/s	string	foot per second



7.139 LengthPerLengthUom

Name	Data Type	Notes
m/cm	string	metre per centimetre
km/cm	string	kilometre per centimetre
ft/mi	string	foot per mile
mi/in	string	mile per inch
m/m	string	metre per metre
m/km	string	metre per kilometre
ft/m	string	foot per metre
1/30 m/m	string	metre per thirty metre
0.01 ft/ft	string	foot per hundred foot
%	string	percent
ft/in	string	foot per inch
ft/ft	string	foot per foot
Euc	string	euclid

7.140 KinematicViscosityUom

Name	Data Type	Notes
m2/s	string	square metre per second
m2/h	string	square metre per hour
mm2/s	string	square millimetre per second
St	string	stokes
Pa.s.m3/kg	string	pascal second square metre per kilogram
cSt	string	centistokes
cm2/s	string	square centimetre per second
ft2/h	string	square foot per hour
in2/s	string	square inch per second
ft2/s	string	square foot per second

7.141 LengthPerMassUom

Name	Data Type	Notes



Name	Data Type	Notes
m/kg	string	metre per kilogram
ft/lbm	string	foot per pound-mass

7.142 LengthPerTemperatureUom

Name	Data Type	Notes
m/deltaK	string	metre per delta kelvin
ft/deltaF	string	foot per delta Fahrenheit

7.143 LengthPerPressureUom

Name	Data Type	Notes
m/Pa	string	metre per Pascal
m/kPa	string	metre per kilopascal
ft/psi	string	foot per psi

7.144 MagneticFieldStrengthUom

Name	Data Type	Notes
Oe	string	oersted
A/mm	string	ampere per millimetre
A/m	string	ampere per metre

7.145 MagneticDipoleMomentUom

Name	Data Type	Notes
Wb.m	string	weber metre

7.146 MagneticFluxDensityPerLengthUom

Name	Data Type	Notes
T/m	string	tesla per metre
mT/dm	string	millitesla per decimetre
gauss/cm	string	gauss per centimetre

7.147 MagneticFluxUom

Name	Data Type	Notes	l
			ı



Name	Data Type	Notes
pWb	string	picoweber
nWb	string	nanoweber
MWb	string	megaweber
Wb	string	weber
uWb	string	microweber
TWb	string	teraweber
mWb	string	milliweber
EWb	string	exaweber
dWb	string	deciweber
cWb	string	centiweber
kWb	string	kiloweber
GWb	string	gigaweber
fWb	string	femtoweber

7.148 MagneticFluxDensityUom

Name	Data Type	Notes
ngauss	string	nanogauss
nT	string	nanotesla
pgauss	string	picogauss
mgauss	string	milligauss
Mgauss	string	megagauss
mT	string	millitesla
тт	string	teratesla
ugauss	string	microgauss
uT	string	microtesla
рТ	string	picotesla
Т	string	tesla
Tgauss	string	teragauss
kT	string	kilotesla



Name	Data Type	Notes
dT	string	decitesla
Egauss	string	exagauss
ET	string	exatesla
cgauss	string	centigauss
сТ	string	centitesla
dgauss	string	decigauss
Ggauss	string	gigagauss
GT	string	gigatesla
kgauss	string	kilogauss
fgauss	string	femtogauss
fT	string	femtotesla
gauss	string	gauss

7.149 LuminousIntensityUom

Name	Data Type	Notes
kcd	string	kilocandela
cd	string	candela

7.150 LogarithmicPowerRatioUom

Name	Data Type	Notes
dB	string	decibel
В	string	bel

7.151 LogarithmicPowerRatioPerLengthUom

Name	Data Type	Notes
dB/km	string	decibel per kilometre
dB/m	string	decibel per metre
B/m	string	bel per metre
dB/ft	string	decibel per foot



7.152 LuminanceUom

Name	Data Type	Notes
cd/m2	string	candela per square metre

7.153 LuminousFluxUom

Name	Data Type	Notes
lm	string	lumen

7.154 LuminousEfficacyUom

Name	Data Type	Notes
lm/W	string	lumen per watt

7.155 EnergyUom

Name	Data Type	Notes
mJ	string	millijoule
MJ	string	megajoule
meV	string	millielectronvolt
MW.h	string	megawatt hour
nJ	string	nanojoule
neV	string	nanoelectronvolt
ncal[th]	string	nanocalorie
kJ	string	kilojoule
keV	string	kiloelectronvolt
kcal[th]	string	thousand calorie
kW.h	string	kilowatt hour
MeV	string	megaelectronvolt
mcal[th]	string	thousandth of calorie
Mcal[th]	string	million calorie
TJ	string	terajoule
therm[US]	string	United States therm
therm[UK]	string	United Kingdom therm



Name	Data Type	Notes
TW.h	string	terrawatt hour
uJ	string	microjoule
ueV	string	microelectronvolt
ucal[th]	string	millionth of calorie
рЈ	string	picojoule
peV	string	picoelectronvolt
pcal[th]	string	picocalorie
quad	string	quad
therm[EC]	string	European Community therm
TeV	string	teraelectronvolt
Tcal[th]	string	million million calorie
cJ	string	centijoule
ceV	string	centielectronvolt
ccal[th]	string	hundredth of calorie
dcal[th]	string	tenth of calorie
Ecal[th]	string	million million calorie
dJ	string	decijoule
deV	string	decielectronvolt
Btu[IT]	string	British thermal unit
aJ	string	attojoule
1E6 Btu[IT]	string	million BTU
Btu[th]	string	thermochemical British thermal unit
cal[th]	string	calorie
cal[IT]	string	calorie [International Table]
Btu[UK]	string	United Kingdom British thermal unit
GJ	string	gigajoule
GeV	string	gigaelectronvolt
Gcal[th]	string	thousand million calorie



Name	Data Type	Notes
GW.h	string	gigawatt hour
J	string	joule
hp[metric].h	string	metric-horsepower hour
hp.h	string	horsepower hour
erg	string	erg
EJ	string	exajoule
EeV	string	exaelectronvolt
eV	string	electronvolt
fJ	string	femtojoule
feV	string	femtoelectronvolt
fcal[th]	string	femtocalorie

7.156 EnergyPerVolumeUom

Name	Data Type	Notes
kJ/m3	string	kilojoule per cubic metre
kW.h/dm3	string	kilowatt hour per cubic decimetre
kJ/dm3	string	kilojoule per cubic decimetre
kcal[th]/cm3	string	thousand calorie per cubic centimetre
kcal[th]/m3	string	thousand calorie per cubic metre
kW.h/m3	string	kilowatt hour per cubic metre
MW.h/m3	string	megawatt hour per cubic metre
tonf[US].mi/bbl	string	US ton-force mile per barrel
MJ/m3	string	megajoule per cubic metre
lbf.ft/bbl	string	foot pound-force per barrel
lbf.ft/gal[US]	string	foot pound-force per US gallon
J/m3	string	joule per cubic metre
Btu[IT]/gal[US]	string	BTU per US gallon
cal[th]/cm3	string	calorie per cubic centimetre
Btu[IT]/gal[UK]	string	BTU per UK gallon



Name	Data Type	Notes
Btu[IT]/bbl	string	BTU per barrel
Btu[IT]/ft3	string	BTU per cubic foot
cal[th]/mL	string	calorie per millilitre
hp.h/bbl	string	horsepower hour per barrel
J/dm3	string	joule per cubic decimetre
erg/m3	string	erg per cubic metre
cal[th]/mm3	string	calorie per cubic millimetre
erg/cm3	string	erg per cubic centimetre

7.157 ForceAreaUom

Name	Data Type	Notes
pdl.cm2	string	poundal square centimetre
N.m2	string	newton square metre
tonf[US].ft2	string	US ton-force square foot
tonf[UK].ft2	string	UK ton-force square foot
mN.m2	string	millinewton square metre
kgf.m2	string	thousand gram-force square metre
dyne.cm2	string	dyne square centimetre
lbf.in2	string	pound-force square inch
kN.m2	string	kilonewton square metre

7.158 ForcePerForceUom

Name	Data Type	Notes
lbf/lbf	string	pound-force per pound-force
N/N	string	newton per newton
kgf/kgf	string	thousand gram-force per kilogram-force
%	string	percent
Euc	string	euclid



7.159 ForceLengthPerLengthUom

Name	Data Type	Notes
N.m/m	string	newton metre per metre
tonf[US].mi/ft	string	US ton-force mile per foot
lbf.in/in	string	pound-force inch per inch
kgf.m/m	string	thousand gram-force metre per metre
lbf.ft/in	string	foot pound-force per inch

7.160 EnergyPerMassUom

Name	Data Type	Notes
kcal[th]/kg	string	thousand calorie per kilogram
kJ/kg	string	kilojoule per kilogram
J/kg	string	joule per kilogram
kcal[th]/g	string	thousand calorie per gram
MJ/kg	string	megajoule per kilogram
MW.h/kg	string	megawatt hour per kilogram
kW.h/kg	string	kilowatt hour per kilogram
lbf.ft/lbm	string	foot pound-force per pound-mass
cal[th]/kg	string	calorie per kilogram
cal[th]/lbm	string	calorie per pound-mass
Btu[IT]/lbm	string	BTU per pound-mass
cal[th]/g	string	calorie per gram
hp.h/lbm	string	horsepower hour per pound-mass
J/g	string	joule per gram
erg/g	string	erg per gram
erg/kg	string	erg per kilogram

7.161 EnergyLengthPerTimeAreaTemperatureUom

Name	Data Type	Notes
kJ.m/(h.m2.deltaK)	string	kilojoule metre per hour square metre delta kelvin
W/(m.deltaK)	string	watt per metre delta kelvin



Name	Data Type	Notes
Btu[IT].in/(h.ft2.deltaF)	string	BTU per (hour square foot delta Fahrenheit per inch)
J.m/(s.m2.deltaK)	string	joule metre per second square metre delta kelvin

7.162 EnergyLengthPerAreaUom

Name	Data Type	Notes
kcal[th].m/cm2	string	thousand calorie metre per square centimetre
J.m/m2	string	joule metre per square metre

7.163 EnergyPerAreaUom

Name	Data Type	Notes
mJ/cm2	string	millijoule per square centimetre
lbf.ft/in2	string	foot pound-force per square inch
N/m	string	newton per metre
mJ/m2	string	millijoule per square metre
J/cm2	string	joule per square centimetre
erg/cm2	string	erg per square centimetre
kgf.m/cm2	string	thousand gram-force metre per square centimetre
J/m2	string	joule per square metre

7.164 EnergyPerMassPerTimeUom

Name	Data Type	Notes
Sv/h	string	sievert per hour
Sv/s	string	sievert per second
rem/h	string	rem per hour
mrem/h	string	thousandth of irem per hour
mSv/h	string	millisievert per hour

7.165 EnergyPerLengthUom

Name	Data Type	Notes
MJ/m	string	megajoule per metre
J/m	string	joule per metre



7.166 HeatTransferCoefficientUom

Name	Data Type	Notes
kcal[th]/(h.m2.deltaC)	string	thousand calorie per hour square metre delta Celsius
J/(s.m2.deltaC)	string	joule per second square metre delta Celsius
kJ/(h.m2.deltaK)	string	kilojoule per hour square metre delta kelvin
W/(m2.deltaK)	string	watt per square metre delta kelvin
kW/(m2.deltaK)	string	kilowatt per square metre delta kelvin
cal[th]/(s.cm2.deltaC)	string	calorie per second square centimetre delta Celsius
Btu[IT]/(h.ft2.deltaR)	string	BTU per hour square foot delta Rankine
Btu[IT]/(h.ft2.deltaF)	string	BTU per hour square foot delta Fahrenheit
Btu[IT]/(h.m2.deltaC)	string	BTU per hour square metre delta Celsius
cal[th]/(h.cm2.deltaC)	string	calorie per hour square centimetre delta Celsius
Btu[IT]/(s.ft2.deltaF)	string	(BTU per second) per square foot delta Fahrenheit

7.167 HeatFlowRateUom

Name	Data Type	Notes
MW	string	megawatt
nW	string	nanowatt
mW	string	milliwatt
lbf.ft/s	string	foot pound-force per second
MJ/a	string	megajoule per julian-year
quad/a	string	quad per julian-year
uW	string	microwatt
W	string	watt
ucal[th]/s	string	millionth of calorie per second
TJ/a	string	terajoule per julian-year
TW	string	terawatt
lbf.ft/min	string	foot pound-force per minute
Btu[IT]/s	string	BTU per second
cal[th]/h	string	calorie per hour



Name	Data Type	Notes
Btu[IT]/min	string	BTU per minute
1E6 Btu[IT]/h	string	million BTU per hour
Btu[IT]/h	string	BTU per hour
EJ/a	string	exajoule per julian-year
kcal[th]/h	string	thousand calorie per hour
kW	string	kilowatt
J/s	string	joule per second
erg/a	string	erg per julian-year
GW	string	gigawatt

7.168 IlluminanceUom

Name	Data Type	Notes
lm/m2	string	lumen per square metre
lx	string	lux
footcandle	string	footcandle
klx	string	kilolux

7.169 IsothermalCompressibilityUom

Name	Data Type	Notes
m3/J	string	cubic metre per joule
mm3/J	string	cubic millimetre per joule
pt[UK]/(hp.h)	string	UK pint per horsepower hour
dm3/(kW.h)	string	cubic decimetre per kilowatt hour
dm3/MJ	string	cubic decimetre per megajoule
m3/(kW.h)	string	cubic metre per kilowatt hour

7.170 InductanceUom

Name	Data Type	Notes
mH	string	millihenry
МН	string	megahenry



Name	Data Type	Notes
kH	string	kilohenry
uH	string	microhenry
тн	string	terahenry
nH	string	nanohenry
EH	string	exahenry
dH	string	decihenry
сН	string	centihenry
Н	string	henry
GH	string	gigahenry
fH	string	femtohenry

7.171 HeatCapacityUom

Name	Data Type	Notes
J/deltaK	string	joule per delta kelvin

7.172 ForcePerVolumeUom

Name	Data Type	Notes
lbf/gal[US]	string	pound-force per US gallon
MPa/m	string	megapascal per metre
kPa/m	string	kilopascal per metre
lbf/ft3	string	pound-force per cubic foot
psi/ft	string	psi per foot
psi/m	string	psi per metre
N/m3	string	newton per cubic metre
Pa/m	string	pascal per metre
kPa/hm	string	kilopascal per hectometre
atm/ft	string	standard atmosphere per foot
atm/hm	string	standard atmosphere per hundred metre
0.001 psi/ft	string	psi per thousand foot
0.01 psi/ft	string	psi per hundred foot



Name	Data Type	Notes
bar/m	string	bar per metre
GPa/cm	string	gigapascal per centimetre
atm/m	string	standard atmosphere per metre
bar/km	string	bar per kilometre

7.173 ForcePerLengthUom

Name	Data Type	Notes
mN/m	string	millinewton per metre
mN/km	string	millinewton per kilometre
lbf/in	string	pound-force per inch
N/m	string	newton per metre
tonf[US]/ft	string	US ton-force per foot
tonf[UK]/ft	string	UK ton-force per foot
pdl/cm	string	poundal per centimetre
1/30 N/m	string	newton per thirty metre
1/30 lbf/m	string	pound-force per thirty metre
0.01 lbf/ft	string	pound-force per hundred foot
dyne/cm	string	dyne per centimetre
lbf/ft	string	pound-force per foot
kN/m	string	kilonewton per metre
kgf/cm	string	thousand gram-force per centimetre

7.174 ForceUom

Name	Data Type	Notes
MN	string	meganewton
N	string	newton
nN	string	nanonewton
lbf	string	pound-force
Mgf	string	million gram-force
mN	string	millinewton



Name	Data Type	Notes
ozf	string	ounce-force
tonf[UK]	string	UK ton-force
tonf[US]	string	US ton-force
uN	string	micronewton
pdl	string	poundal
pN	string	piconewton
TN	string	teranewton
kN	string	kilonewton
dN	string	decinewton
dyne	string	dyne
EN	string	exanewton
10 kN	string	ten kilonewton
cN	string	centinewton
daN	string	dekanewton
fN	string	femtonewton
kdyne	string	kilodyne
kgf	string	thousand gram-force
klbf	string	thousand pound-force
gf	string	gram-force
GN	string	giganewton
hN	string	hectonewton

7.175 FrequencyUom

Name	Data Type	Notes
nHz	string	nanohertz
MHz	string	megahertz
mHz	string	millihertz
uHz	string	microhertz
THz	string	terahertz



Name	Data Type	Notes
pHz	string	picohertz
kHz	string	kilohertz
EHz	string	exahertz
dHz	string	decihertz
cHz	string	centihertz
Hz	string	hertz
GHz	string	gigahertz
fHz	string	femtohertz

7.176 FrequencyIntervalUom

Name	Data Type	Notes
0	string	octave