Measurement type

https://ogc.org/ogc/rec/measurementType

List of Measurement Type properties that can be measured current by appropriate measuring instrument.

Defined values for this Type

Code Value	Name	Description and URI
AbsolutePressure	Absolute humidity	The ratio of the mass of water vapour in a given volume of air to the volume of air. Unit: kilogram per cubic meter. qu:MassQuantityKind
AbsorbedDose	Absorbed dose	The energy deposited per unit mass of matter by ionizing radiation. Unit: gray. It is used in the dosimetry of patient for diagnostic or therapeutic purposes. SI Unit: Gray. qu:EnergyQuantityKind
AbsorbedDoseRate	Absorbed dose rate	The energy deposited per unit mass of matter by ionizing radiation per unit time. The dose of a radionuclide given to the patient for diagnostic or therapeutic purposes. SI Unit: Watt per kilogram. qu:EnergyPerMassPerTimeQuantityKind
Acceleration	Acceleration	The rate of change of velocity of an object with magnitude and direction. Unit: meter per second per second. qu:LinearAccelerationQuantityKind
Altitude	Altitude or Elevation	The height above the Earth's surface (defined geoid typically the World Geodetic System 1984 (WGS84) or Geoscientists that isostatic rebound, tectonic movement, earthquakes, GPS, Glonass, Galileo, Beidou, and other GNSS satellite surface of the earth at one point in time. Unit: meter. Altitude height above the Earth's surface. Altitude is measured in the geoid surface. SI Unit: meter. qu:LengthQuantityKind, qu:VertCrdsy
AmountOfSubstance	Amount of substance	The amount of substance in a given sample of atoms, molecules etc. that contain the same number of constituent. SI Unit: mole. qu:AmountOfSubstanceQuantityKind
AmountOfSubstancePerVolume	Amount of substance per unit volume	The concentration of a substance per unit volume of solution. SI Unit: mole per cubic meter. qu:AmountOfSubstancePerVolumeQuantityKind
Angle	Angle	The inclination of one line to another. Unit: degree, radians, etc. qu:PlaneAngleQuantityKind
AngularAcceleration	Angular acceleration	The rate of change of angular velocity with respect to time. Unit: radian per second squared. qu:AngularAccelerationQuantityKind
AngularMomentum	Angular impulse or Angular momentum	The integral over time of the torque acting on a body. Angular momentum is a corresponding quantity to linear momentum. It is a measure of rotation motion around a particular point. Unit: newton metre second. qu:AngularMomentumQuantityKind
AngularVelocity	Angular velocity	The rate of change of angle with respect to time, or a measure of the number of revolutions per unit time. Unit: radian per second. qu:AngularVelocityQuantityKind
Area	Area	The amount of two-dimensional space occupied, measured in units of length squared. Unit: square meter. qu:AreaQuantityKind
Capacitance	Capacitance	The capacitance of an isolated conductor is the ratio between the total charge on it to its potential. Unit: farad. qu:CapacitanceQuantityKind
Conductance	Conductance	The ratio of the current in a conductor to the potential difference between two points in the conductor of resistance. SI Unit: siemen. qu:ElectricalConductanceQuantityKind
Conductivity	Conductivity	A measure of how strongly a material conducts electric current. It is the inverse of electrical resistivity. The electric field that causes the flow of electric current in a material. qu:ElectricalConductivityQuantityKind
Count	Count	A measure of the total quantity of something, the number of something, the number of something. Unit: dimensionless (no units). qu:CountQuantityKind
Density	Density	The mass per unit volume of a substance. SI Unit: kilogram per cubic meter. qu:MassDensityQuantityKind
Dimensionless	Dimensionless	A measurement whose value is independent of any kind of quantity. Unit: dimensionless (no units). qu:RelativeHumidity. It should be used in dimensionless quantities. qu:DimensionlessQuantityKind
DoseEquivalent	Dose Equivalent	The product of the absorbed dose and a factor depending on the type of radiation and a factor depending on the biological aspects of the body being irradiated. SI Unit: Sievert. Dose equivalent. SI Unit: Sievert. qu:EnergyQuantityKind
DoseEquivalentRate	Dose equivalent rate	The product of the absorbed dose rate and a factor depending on the type of radiation and a factor depending on the biological aspects of the body being irradiated. SI Unit: sievert per second. qu:EnergyPerMassPerTimeQuantityKind
DynamicViscosity	Dynamic viscosity	The value of the tangential force per unit area required to maintain one unit difference in velocity between two parallel planes unit distance apart. Unit: pascal second. qu:DynamicViscosityQuantityKind
ElectricCharge	Electric Charge	Quantity of an electric charge, usually carried by a proton or electron, or electrons or protons in excess of neutralizing positive charge, respectively. Unit: coulomb. qu:ElectricalChargeQuantityKind
ElectricCurrent	Electric Current	Rate of flow of charge in a conductor. Unit: ampere. SI Unit: ampere. qu:ElectricalCurrentQuantityKind
ElectricCurrentDensity	Electric current density	Rate of flow of charge in a substance per unit area of cross-section. Unit: ampere per square meter. qu:ElectricCurrentDensityQuantityKind
ElectricFieldStrength	Electric field strength	The force per unit charge in a unit charge. The force per unit charge exerted on a stationary charge. Unit: volt per meter. qu:ElectricalFieldStrengthQuantityKind
Energy	Energy	A measure of the capacity of something to perform work. SI Unit: joule. qu:EnergyQuantityKind
Exposure	Exposure	The product of light intensity and the duration of the exposure. SI Unit: coulomb per kilogram. qu:ExposureQuantityKind
Force	Force	The rate of change of linear momentum of a body to which a force acts. A force is a push or a pull. A force tends to cause acceleration or a deceleration in the motion of a body. qu:ForceQuantityKind
Frequency	Frequency	The rate of repetition of a periodic oscillation or disturbance. The number of cycles per second. Unit: hertz. qu:FrequencyQuantityKind
Illuminance	Illuminance	The energy in the form of visible radiation reaching a surface per unit area in unit time. Unit: lux. Illuminance flux per unit area per second. qu:IlluminanceQuantityKind
Inductance	Inductance	The magnitude of the property of an element or circuit that opposes changes in current. Unit: henry. qu:ElectricalInductanceQuantityKind
Length	Length	The linear extent of an object. Unit: meter. qu:LengthQuantityKind
LinearMomentum	Impulse or linear momentum	The product of the mass and velocity of a body. Unit: kilogram per second. qu:LinearMomentumQuantityKind
Luminance	Luminance	A measure of the light emitting intensity of a light source or illuminated surface in a given direction per unit area of projected surface. It is a very narrow cone containing the direction, it is the ratio of the luminous flux emitted within that cone per unit area of projected surface. Unit: candela per square meter. qu:LuminanceQuantityKind
LuminousFlux	Luminous flux	A measure of the perceived power of light emitted by a light source or illuminated surface and irrespective of the direction of the light. It is a measure of the total amount of light. SI Unit: lumen = 1 candela steradian. qu:LuminousFluxQuantityKind
LuminousIntensity	Luminous intensity	A measure of the light emitted by a light source, in a specific direction. It is a very narrow cone containing the direction, it is the ratio of the luminous flux emitted within that cone to the solid angle of the cone. SI Unit: candela. qu:LuminousIntensityQuantityKind
MagneticFlux	Magnetic flux	The amount of magnetic field that passes through a specific area. The product of the average magnetic field perpendicular to the medium and the surface area of the medium. Unit: weber. qu:MagneticFluxQuantityKind
MagneticFluxDensity	Magnetic flux density	The product of the magnetic flux and the magnetic permeability of a material. Unit: tesla. Unit: weber per square meter. qu:MagneticFluxDensityQuantityKind
MagneticVectorPotential	Magnetic vector potential	The vector potential for magnetic field. Unit: weber per unit length (current multiplied by length). Unit: weber per meter (Tesla per ampere meter). qu:MagneticVectorPotentialQuantityKind
Mass	Mass	The quantity of matter in a body. Inertial mass is the ratio of a force applied to a body. Its resistance to acceleration. SI Unit: kilogram. qu:MassQuantityKind
MassConcentration	Mass concentration	The mass of the constituent divided by the volume of the solution. SI Unit: kilogram per cubic meter. qu:MassConcentrationQuantityKind
MassFlowRate	Mass flow rate	The mass of fluid that passes through a given surface per unit time. Unit: kilogram per second. qu:MassFlowRateQuantityKind
MassPerAreaTime	Mass flux / Mass per area per time	The mass of fluid that passes through a given surface per unit area perpendicular to the flow per unit time. Unit: kilogram per second per square meter. qu:MassPerAreaPerTimeQuantityKind
MemoryCapacity	Memory capacity	A measure of the size of a data structure or capacity of a data storage device, measured in bits (binary digits), bytes or words. Unit: bit, byte, word. qu:MemoryCapacityQuantityKind
MolalityOfSolute	Molality of solute	The concentration of a solution expressed as the number of moles of dissolved substance per unit mass of solvent. SI Unit: mole per kilogram. qu:MolalityOfSoluteQuantityKind
MolarEnergy	Molar thermodynamic energy	The molar energy of a chemical compound to the energy of molecules (atoms or molecules) contained within it, the energy of chemical bonds measured in moles. SI Unit: joule per mole. qu:MolarEnergyQuantityKind
MolarMass	Molar mass	The ratio of the mass of a chemical compound to the amount of substance (moles of molecules) contained within it, the amount of substance being measured in moles. Unit: kilogram per mole. qu:MolarMassQuantityKind
MolarVolume	Molar volume	The volume occupied by a substance per unit amount of substance at a specified temperature and pressure. SI Unit: cubic meters per mole. qu:MolarVolumeQuantityKind
Power	Power	The rate of doing work or rate of production. Transfer of energy per unit time. The amount of energy transferred or converted per unit time. SI Unit: watt. qu:PowerQuantityKind
Pressure	Pressure	The force per unit area acting on a surface. Force per unit area. Force exerted perpendicular to a surface. Unit: pascal, newton per square meter. qu:PressureQuantityKind
RadiantFlux	Radiant flux	The total power emitted, reflected, transmitted or received in the form of electromagnetic radiation, a measure of electromagnetic energy per unit time. SI Unit: watt. qu:PowerQuantityKind
RadiantIntensity	Radiant intensity	The radiant flux per unit solid angle emitted from a point source. SI Unit: watt per steradian. qu:PowerPerSolidAngleQuantityKind
Radioactivity	Radioactivity	The rate of spontaneous nuclear decay. Unit: the number of atomic nuclear transmutations per second. Unit: disintegration per second, alpha decay, beta decay or gamma decay. SI Unit: becquerel. qu:RadioactivityQuantityKind
RelativeHumidity	Relative humidity	The ratio of the partial pressure of water vapour in an air-water mixture to the saturation vapour pressure of water at a specified temperature. Unit: dimensionless (percentage). qu:RelativeHumidityQuantityKind
Resistivity	Resistivity	A measure of how strongly a material opposes the flow or transmission of electric field required to maintain one unit of electric current flowing through the material. SI Unit: ohm meter. qu:ElectricalResistivityQuantityKind
SolidAngle	Solid angle	A three-dimensional angle, measured in steradians, indicating a measure of the portion of a sphere that an object subtends. The ratio between the spherical surface area subtended at the vertex of a cone and the square of the spherical radius. SI Unit: steradian. qu:SolidAngleQuantityKind
SpecificVolume	Specific volume	The volume of a substance per unit mass. The reciprocal of density. SI Unit: cubic meters per kilogram. qu:SpecificVolumeQuantityKind
Speed	Speed or Velocity	The ratio of the linear distance covered to the time taken. Speed is a scalar quantity. Speed is a vector with magnitude and direction. Unit: meter per second. qu:SpeedQuantityKind
SurfaceDensity	Surface density	The mass per unit area distributed over a surface. SI Unit: kilogram per square meter. qu:SurfaceDensityQuantityKind
SurfaceTension	Surface tension	The attractive force exerted by the surface molecules of a liquid by the molecules beneath that tends to draw the surface molecules into the bulk of the liquid and causes the surface to take the shape having the smallest possible area. Unit: newton per metre. qu:SurfaceTensionQuantityKind
Temperature	Temperature	Measure of how hot or cold something is. Temperature is a measure of the average kinetic energy of the molecules in a system in equilibrium and each the degrees of freedom. Unit: kelvin. qu:Temperature. Thermal energy (heat) flows from the system with higher temperature to the system with lower temperature. SI Unit: kelvin. qu:Temperature
Time	Time	A dimension that enables distinction between two events, or between one that occur at the same place, and measure the duration between such events is the time. Unit: second. qu:TimeQuantityKind
Torque	Torque	The product of a force and its perpendicular distance from a point about which it tends to produce rotation. Unit: newton metre. qu:TorqueQuantityKind
Voltage	Voltage	The value of an electromotive force or electrostatic potential difference. Unit: volt. qu:ElectricalPotentialDifferenceQuantityKind
Volume	Volume	The amount of space that a body occupies. Unit: cubic meter. qu:VolumeQuantityKind
VolumeFlowRate	Volume flow rate	The volume of fluid that passes per unit of time. SI Unit: cubic meter per second. qu:VolumeFlowRateQuantityKind
VolumeFraction	Volume Fraction	The dimensionless ratio of a component volume to the volume of solid, liquid or gas mixture that it is contained. SI Unit: parts per million. qu:VolumeFractionQuantityKind
VolumetricFlux	Volumetric flux	The volume of fluid that passes per unit area per unit time. It is the rate of the flow (Region). SI Unit: cubic meter per second per square meter. qu:VolumetricFluxQuantityKind
WavenumberQ	Wavenumber	The number of waves per unit length. SI Unit: reciprocal meter. qu:WavenumberQuantityKind