Dimensions

Quaestor dimensions or unit of measurement

In Quaestor every parameter should have a name, dimension and reference. Below the available dimensions are presented. In addition to the official dimension, an alternative presentation can be created using the @WBDIM attribute.

Wikipedia: [Unit of measurement]

Please note that Quaestor automatically performs a dimension analysis for relations in the knowledge base. Whether the dimensions on the left and the right side of an expression match, is communicated to the user in the Frame viewer or the Explanation windows. Furthermore, the dimension is used to calculate the proper input based on the DimensionConversion input provided with alternative dimensions.

Dimension description	Name	Available units	Derivation	Domain
non-dimensional	-	-	-	Non-dimensional
meter	m	k,d,c,m,mu,n,p,f,a	m	Length
Feet	Ft	-	0.3048*m	Length
Inches	In	-	0.0254*m	Length
Statutary Miles	Mi	-	1609.344*m	Distance
Nautical miles	NMi	-	1852.009*m	Distance
liter	l	-	0.001*m3	Volume
gram	g	m,mu,n,p,f,a	0.001*kg	Mass
kilogram	kg	-	kg	Mass
ton	t	E,P,T,G,M,k	1000*kg	Mass
Pounds	Pnd	-	0.45359*kg	Mass
second	s	m,mu,n,p,f,a	s	Time
minute	min	-	60*s	Time
hour	h	-	3600*s	Time
day	d	-	86400*s	Time
week	wk	-	604800*s	Time
year	yr	-	31557960*s	Time
knots	kts	-	0.514447*m/s	Speed
Newton	N	E,P,T,G,M,k	kg*m/s2	Force
kgforce	kgf	-	9.80665*N	Force
Joule	J	E,P,T,G,M,k	N*m	Energy
electronVolt	eV	E,P,T,G,M,k	1.6020E-19*J	Particle energy
calory	cal	k	4.19*J	Energy
KiloWattHour	kWh	-	3600000*W*s	Energy
Watt	W	E,P,T,G,M,k,m,mu,n,p,f,a	J/s	Power
Horsepower	HP	-	736*W	Power
Pascal	Pa	E,P,T,G,M,k	N/m2	Pressure
Bar	bar	m	100000*Pa	Pressure
Atmosphere	at	-	98066.5*Pa	Pressure
PSI	PSI	-	6894.69*Pa	Pressure
centigrade	c	-	K	Temperature
fahrenheit	f	-	5/9*K	Temperature
Kelvin	K	-	K	Temperature
Ampere	A	E,P,T,G,M,k,m,mu,n,p,f,a	A	Current

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Volt	V	E,P,T,G,M,k,m,mu,n,p,f,a	W/A	Voltage
VoltAmpere	VA	k	V*A	Electric power
Coulomb	C	E,P,T,G,M,k	A*s	Electric charge
Farad	F	m,mu,n,p,f,a	C/V	Electric capacity
Ohm	Ohm	-	V/A	Electric resistance
Siemens	S	-	1/Ohm	Electric conduction
Hertz	Hz	E,P,T,G,M,k	1/s	Frequency
mol	mol	-	mol	Quantity of matter
radians	rad	-	rad	Angle
degrees	deg	-	Pi*rad/180	Angle
steradians	sr	-	sr	Space angle
Weber	Wb	-	V*s	Magnetic flux
Tesla	T	E,P,T,G,M,k,m,mu,n,p,f,a	Wb/m2	Magnetic induction
Henry	H	-	Wb/A	Inductance
candela	cd	-	cd	Light strength
lumen	lm	-	cd*sr	Light stream
lux	lx	-	cd*sr/m2	Light strength
Becquerel	Bq	-	1/s	Radiation activity
Gray	Gy	-	m2/s2	Radiation absorbed dose
Curie	Ci	-	m2/s2	Radiation absorbed dose
rad	rd	-	0.01*Gy	Radiation absorbed dose
Roentgen	R	-	0.000258*C/kg	Radiation exposure
decibel	dB	-	dB	Ratio between two quantities
Items	#	-	#	Object
Euro	EUR	M,k	EUR	Money
EuroCents	EUROCT	-	0.01*EUR	Money
USDollars	USD	-	USD	Money
Identifier	ID	-	ID	General
Boolean	BLN	-	BLN	General
Percent	%	-	%	General
Object	Obj	-	Obj	Function or Object
Telitab set	Telitab	-	Str	Telitab parameter
String	Str	-	Str	Function or parameter
Numeric	Num	-	Num	Functions
Logical	Log	-	Log	Operators
Argument	Arg	-	Arg	Functions
Various	Var	-	Var	Various dimension

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