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# 40 C.F.R. § 1065.1005

## Symbols, abbreviations, acronyms, and units of measure.

The procedures in this part generally follow the International System of Units (SI), as detailed in NIST Special Publication 811, which we incorporate by reference in § 1065.1010. See § 1065.20 for specific provisions related to these conventions. This section summarizes the way we use symbols, units of measure, and other abbreviations.

(a) *Symbols for quantities.* This part uses the following symbols and units of measure for various quantities:

Table 1 of § 1065.1005—Symbols for Quantities

| Symbol | Quantity | Unit | Unit symbol | Units in terms of SI base units |
|---|---|---|---|---|
| $\alpha$ | atomic hydrogen-to-carbon ratio | mole per mole | mol/mol | 1. |
| $A$ | area | square meter | m2 | m2. |
| $a0$ | intercept of least squares regression | | | |
| $a1$ | slope of least squares regression | | | |
| $ag$ | acceleration of Earth's gravity | meter per square second | m/s2 | m· s-2. |
| $\beta$ | ratio of diameters | meter per meter | m/m | 1. |
| $\beta$ | atomic oxygen-to-carbon ratio | mole per mole | mol/mol | 1. |
| $C\#$ | number of carbon atoms in a molecule | | | |
| $c$ | power-specific carbon mass error coefficient | gram per kilowatt-hour | g/(kW·hr) | 3.6-1·10-9·m-2·s2. |
| $Cd$ | discharge coefficient | | | |
| $Cf$ | flow coefficient | | | |
| $\delta$ | atomic nitrogen-to-carbon ratio | mole per mole | mol/mol | 1. |
| $d$ | diameter | meter | m | m. |
| $d$ | power-specific carbon mass rate absolute error coefficent | gram per kilowatt-hour | g/(kW·hr) | 3.6-1·10-9·m-2·s2. |
| $DR$ | dilution ratio | mole per mole | mol/mol | 1. |

| | | | | |
|---|---|---|---|---|
| $\varepsilon$ | error between a quantity and its reference | | | |
| $\in$ | difference or error quantity | | | |
| *e* | brake-specific emission or fuel consumption | gram per kilowatt hour | g/(kW·hr) | 3.6−1 · 10−9 · m−2 · s2. |
| *F* | F-test statistic | | | |
| *f* | frequency | hertz | Hz | s−1. |
| fn | angular speed (shaft) | revolutions per minute | r/min | π · 30−1 · s−1. |
| γ | ratio of specific heats | (joule per kilogram kelvin) per (joule per kilogram kelvin) | (J/(kg·K))/(J/(kg·K)) | 1. |
| γ | atomic sulfur-to-carbon ratio | mole per mole | mol/mol | 1. |
| $\kappa$ | opacity | | | |
| *K* | correction factor | | | 1. |
| *Kv* | calibration coefficient | | m4 · s · K0.5/kg | m4 · kg−1 · s · K0.5. |
| *l* | length | meter | m | m. |
| *L* | limit | | | |
| $\mu$ | viscosity, dynamic | pascal second | Pa·s | m−1 · kg · s−1. |
| *M* | molar mass 1 | gram per mole | g/mol | 10−3 · kg · mol−1. |
| *m* | mass | kilogram | kg | kg. |
| *m* | mass rate | kilogram per second | kg/s | kg · s−1. |
| *v* | viscosity, kinematic | meter squared per second | m2/s | m2 · s−1. |
| *N* | total number in series | | | |
| *n* | amount of substance | mole | mol | mol. |
| *n* | amount of substance rate | mole per second | mol/s | mol · s−1. |
| *P* | power | kilowatt | kW | 103 · m2 · kg · s−3. |
| *PF* | penetration fraction | | | |
| *p* | pressure | pascal | Pa | m−1 · kg · s−2. |
| $\rho$ | mass density | kilogram per cubic meter | kg/m3 | m−3 · kg. |
| $\Delta p$ | differential static pressure | pascal | Pa | m−1 · kg · s−2. |
| *r* | ratio of pressures | pascal per pascal | Pa/Pa | 1. |

| | | | | |
|---|---|---|---|---|
| *r2* | coefficient of determination | | | |
| *Ra* | average surface roughness | micrometer | µm | 10−6 · m. |
| *Re#* | Reynolds number | | | |
| *RF* | response factor | | | |
| *RH* | relative humidity | | | |
| $\sigma$ | non-biased standard deviation | | | |
| *S* | Sutherland constant | kelvin | K | K. |
| *SEE* | standard error of the estimate | | | |
| *T* | absolute temperature | kelvin | K | K. |
| *T* | Celsius temperature | degree Celsius | °C | K−273.15. |
| *T* | torque (moment of force) | newton meter | N·m | m2 · kg · s−2. |
| $\theta$ | plane angle | degrees | ° | rad. |
| *t* | time | second | s | s. |
| $\Delta t$ | time interval, period, 1/frequency | second | s | s. |
| *V* | volume | cubic meter | m3 | m3. |
| *V* | volume rate | cubic meter per second | m3/s | m3 · s−1. |
| *W* | work | kilowatt-hour | kW·hr | 3.6 · 106 · m2 · kg · s−2. |
| $w_C$ | carbon mass fraction | gram per gram | g/g | 1. |
| *x* | amount of substance mole fraction.2 | mole per mole | mol/mol | 1. |
| *X* ~ | flow-weighted mean concentration | mole per mole | mol/mol | 1. |
| *y* | generic variable | | | |
| *Z* | compressibility factor | | | |