Calculation Methods

As of July 22, 2008

- Arithmetic Averaging [9]
- CEMS Arithmetic Averaging [$]
- Average Wind Speed [3]
- Average Horizontal Wind Direction [4]
- Vector Wind Speed [1]
- Vector Wind Direction [2]
- Sigma Theta [S]
- Sigma v [j]
- Rain Tip Bucket [A]
- Rain Optical [p] = (25 * (Vout exp 1.87)) - 0.15
- Min N Seconds [x] = Minimum 'N' second average
- Peak N Seconds [y] = Maximum 'N' second Average
- Product [7] = P1 * P2
- Product 2 [g] = P1 * CONSTANT
- Product 3 [h] = P1 * P2 * CONSTANT
- Product 4 [v] = P1 / (CONSTANT - P2)
- Product 5 [w] = P1 * CONSTANT * 9240 * (20.9 / (20.9 - P2))
- Product 6 [B] = (P1 * CONSTANT) + 3371
- Product 7 [a] = (P1 * 0.001959) / (0.265 - (0.0126 * P2))
- Product 8 [b] = 14984 * SQRT(650 / (P1 + 460)) * (P2 / 5937000)
- Product 9 [c] = CONSTANT * P1 / P2
- Product 10 [d] = P1 + CONSTANT
- Product 11 [e] = SQRT(P1 / CONSTANT)
- Product 12 [J] = (P1 * P2) / CONSTANT
- Hourly Ave Product 2 [W] = P1 * CONSTANT
- Hourly Ave Product 12 [X] = (P1 * P2) / CONSTANT
- Daily Summation [D] = Daily Summation of Hourly Averages
- Summation [K] = P1 + P2
- Hour Previous Daily Summation [Q]
- N Hour Rolling Average [r]
- N Hour Block Average [q]
- Difference [6] = P1 - P2
- Hourly Ave Difference [V] = P1 - P2

- Hourly Ave Ratio [Y] = P1 / P2
- Hourly Ave Percent O2 [Z] = P1 * ((21 - CONSTANT) / (21 - P2))
- Percent O2 [o] = P1 * ((21 - CONSTANT) / (21 - P2))
- Ratio [8] = P1 / P2
- Square Root [s] = Square Root of P1
- Hour Previous [E]
- Min N Minutes [F] = The minimum 'N' Minute average
- Peak N Minute Rolling [G] = The maximum 'N' Minute rolling average
- Peak N Minute Block [M] = The maximum 'N' Minute block average
- Floor [f] = The greater of P1 and CONSTANT
- Ceiling [C] = The lesser of P1 and CONSTANT
- Dual Range [L]
- Hour Snapshot [R]
- Dual Range 2 [T] = When P1 < CONSTANT then P1, else P2
- Dual Range 3 [U] = When input bit # CONSTANT is 0 then P1, else P2
- Dual Range 4 [!] = When P1 < CONSTANT then P2, else P1
- Modbus Master [M]
- N-Hour Operational Rolling [l]
- PLC Input [P]
- SQL Input [N]
- 1 Hour Opacity [H]
- 2 Minute Opacity [I]
- Raw Opacity [O] = same as arithmetic average
- Opacity 2 [z] = 100 * (1 - $e^{-(DS \times Cd/1000 \times K)}$)
- Part 75 Block 30 Day [0]
- Part 75 Rolling 30 Day [5]
- Part 75 Block 15 Minute [i]
- N Hour Rolling Projection [k]
- N Minute Rolling [m]
- 24 Hour Exceedance Projection [t]
- Wet To Dry [u] = P1 / (1 - (P2 / 100))
- Slope Correction [#] = C1 * P1 + C2
- Gas Velocity [+] =
- Instant Stack Flow [%] =
- Standard Stack Flow [&] =