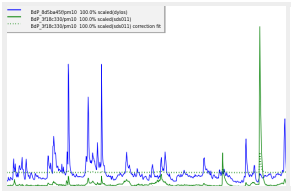
Summary of correlations of sensor kits and sensor modules

Sensorkits: BdP_8d5ba45f BdP_3f18c330 BdP_33040d54
Report generated on: Sun Aug 6 15:01:05 CEST 2017

R-square and statistical summary

Measurement PM10 correlation key values

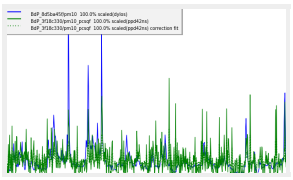
Correlation 1 - **PM10** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_3f18c330 sensor type **SDS011**:



nr samples 731, min= 3.50, max=510.12
avg=13.53, std dev=28.24
R-squared:
0.0101

Best fit polynomial coefficients:
[4.770e+01, 1.257e-01]

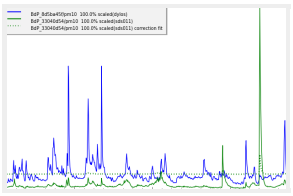
Correlation 2 - **PM10** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_3f18c330 sensor type **PPD42NS**:



nr samples 704, min= 1.00, max=405.00
avg=51.93, std dev=36.32
R-squared:
0.1592

Best fit polynomial coefficients:
[2.964e+01, 3.938e-01]

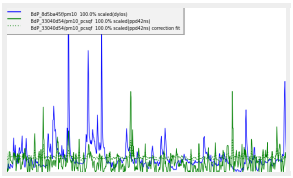
Correlation 3 - **PM10** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **SDS011**:



nr samples 731, min= 3.75, max=584.86
avg=15.26, std dev=31.69
R-squared:
0.0092

Best fit polynomial coefficients:
[4.776e+01, 1.074e-01]

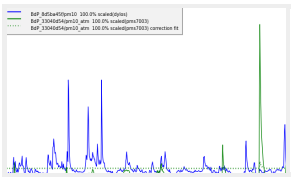
Correlation 4 - **PM10** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 721, min= 1.00, max=196.00
avg=38.59, std dev=22.19
R-squared:
0.0220

Best fit polynomial coefficients:
[4.056e+01, 2.373e-01]

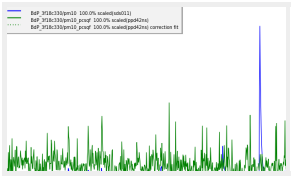
Correlation 5 - **PM10** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 731, min= 0.67, max=606.07
avg=18.60, std dev=35.89
R-squared:
0.0020

Best fit polynomial coefficients:
[4.859e+01, 4.390e-02]

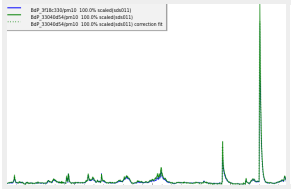
Correlation 6 - **PM10** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_3f18c330 sensor type **PPD42NS**:



nr samples 704, min= 1.00, max=405.00
avg=51.93, std dev=36.32
R-squared:
0.0051

Best fit polynomial coefficients:
[1.082e+01, 5.628e-02]

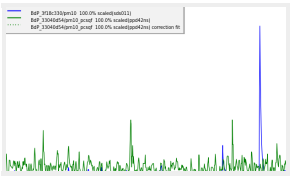
Correlation 7 - **PM10** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **SDS011**:



nr samples 731, min= 3.75, max=584.86
avg=15.26, std dev=31.69
R-squared:
0.9947

Best fit polynomial coefficients:
[-3.066e-02, 8.888e-01]

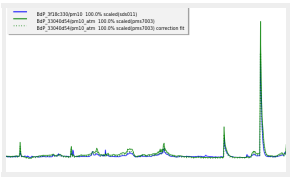
Correlation 8 - **PM10** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 721, min= 1.00, max=196.00
avg=38.59, std dev=22.19
R-squared:
0.0000

Best fit polynomial coefficients:
[1.376e+01, -3.593e-03]

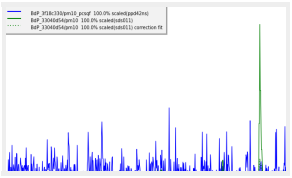
Correlation 9 - **PM10** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 731, min= 0.67, max=606.07
avg=18.60, std dev=35.89
R-squared:
0.9590

Best fit polynomial coefficients:
[-8.005e-01, 7.706e-01]

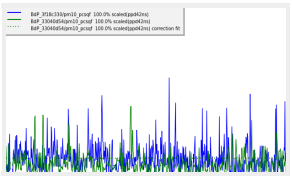
Correlation 10 - **PM10** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **SDS011**:



nr samples 704, min= 4.27, max=521.00
avg=15.49, std dev=29.74
R-squared:
0.0044

Best fit polynomial coefficients:
[5.066e+01, 8.147e-02]

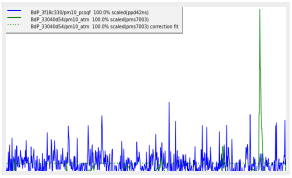
Correlation 11 - **PM10** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 669, min= 1.00, max=183.25
avg=38.87, std dev=25.51
R-squared:
0.0002

Best fit polynomial coefficients:
[5.196e+01, 1.793e-02]

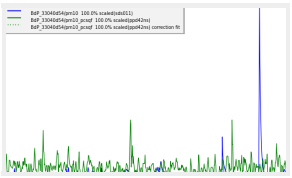
Correlation 12 - **PM10** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 704, min= 0.76, max=564.55
avg=18.80, std dev=34.59
R-squared:
0.0014

Best fit polynomial coefficients:
[5.119e+01, 3.907e-02]

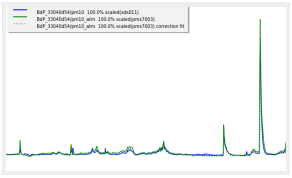
Correlation 13 - **PM10** - kit BdP_33040d54 sensor type **SDS011** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 722, min= 1.00, max=196.00
avg=38.58, std dev=22.18
R-squared:
0.0000

Best fit polynomial coefficients:
[1.561e+01, -7.011e-03]

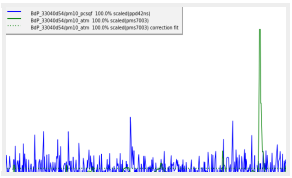
Correlation 14 - **PM10** - kit BdP_33040d54 sensor type **SDS011** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 732, min= 0.67, max=606.07
avg=18.59, std dev=35.86
R-squared:
0.9661

Best fit polynomial coefficients:
[-8.902e-01, 8.679e-01]

Correlation 15 - **PM10** - kit BdP_33040d54 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PMS7003**:

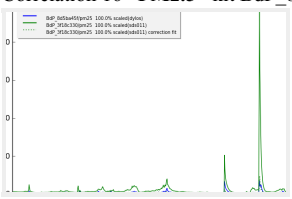


nr samples 587, min= 0.82, max=500.94
avg=19.71, std dev=40.02
R-squared:
0.0000

Best fit polynomial coefficients:
[3.800e+01, -2.078e-03]

Measurement PM2.5 correlation key values

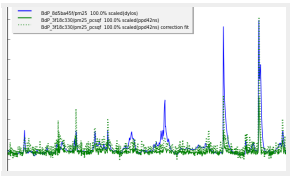
Correlation 16 - **PM2.5** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_3f18c330 sensor type **SDS011**:



nr samples 731, min=316.14, max=97106.38
avg=2014.46, std dev=5406.62
R-squared:
0.6350

Best fit polynomial coefficients:
[4.228e+02, 9.224e-02]

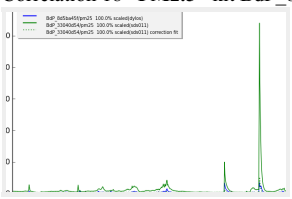
Correlation 17 - **PM2.5** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_3f18c330 sensor type **PPD42NS**:



nr samples 731, min=124.62, max=3127.00
avg=393.40, std dev=194.87
R-squared:
0.5473

Best fit polynomial coefficients:
[-3.261e+02, 2.376e+00]

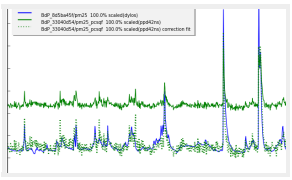
Correlation 18 - **PM2.5** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **SDS011**:



nr samples 731, min=405.57, max=107982.71
avg=2272.12, std dev=5797.36
R-squared:
0.6102

Best fit polynomial coefficients:
[4.170e+02, 8.433e-02]

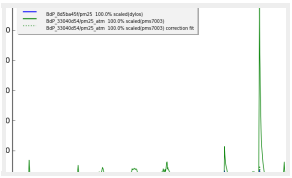
Correlation 19 - **PM2.5** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 731, min=2106.00, max=4894.29
avg=2421.41, std dev=280.32
R-squared:
0.7988

Best fit polynomial coefficients:
[-4.223e+03, 1.995e+00]

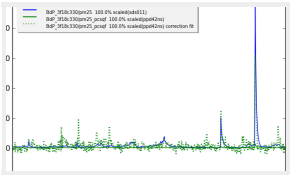
Correlation 20 - **PM2.5** - kit BdP_8d5ba45f sensor type **DYLOS** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 731, min=100.60, max=115010.00
avg=3465.42, std dev=6767.91
R-squared:
0.6489

Best fit polynomial coefficients:
[3.505e+02, 7.449e-02]

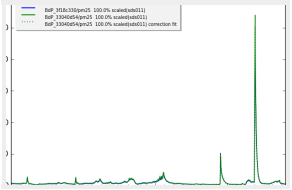
Correlation 21 - **PM2.5** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_3f18c330 sensor type **PPD42NS**:



nr samples 731, min=124.62, max=3127.00
avg=393.40, std dev=194.87
R-squared:
0.6317

Best fit polynomial coefficients:
[-6.661e+03, 2.205e+01]

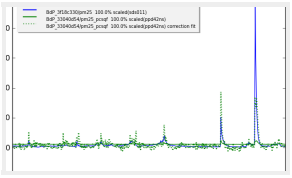
Correlation 22 - **PM2.5** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **SDS011**:



nr samples 731, min=405.57, max=107982.71
avg=2272.12, std dev=5797.36
R-squared:
0.9971

Best fit polynomial coefficients:
[-1.014e+02, 9.312e-01]

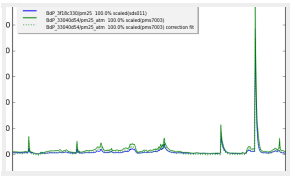
Correlation 23 - **PM2.5** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 731, min=2106.00, max=4894.29
avg=2421.41, std dev=280.32
R-squared:
0.5475

Best fit polynomial coefficients:
[-3.254e+04, 1.427e+01]

Correlation 24 - **PM2.5** - kit BdP_3f18c330 sensor type **SDS011** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 731, min=100.60, max=115010.00
avg=3465.42, std dev=6767.91
R-squared:
0.9726

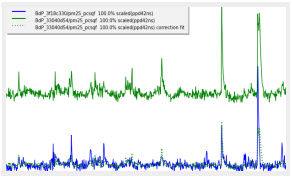
Best fit polynomial coefficients:
[-7.158e+02, 7.878e-01]

Correlation 25 - **PM2.5** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **SDS011**:

nr samples 732, min=405.57, max=107982.71
avg=2270.60, std dev=5793.55
R-squared:
0.6206

Best fit polynomial coefficients:
[3.327e+02, 2.653e-02]

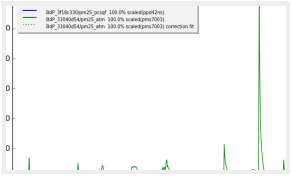
Correlation 26 - **PM2.5** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 732, min=2106.00, max=4894.29
avg=2421.13, std dev=280.23
R-squared:
0.4462

Best fit polynomial coefficients:
[-7.331e+02, 4.651e-01]

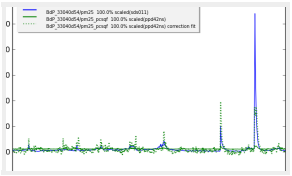
Correlation 27 - **PM2.5** - kit BdP_3f18c330 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 732, min=100.60, max=115010.00
avg=3464.11, std dev=6763.38
R-squared:
0.5966

Best fit polynomial coefficients:
[3.158e+02, 2.228e-02]

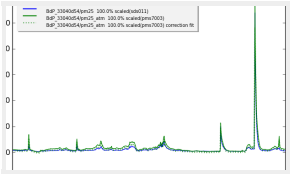
Correlation 28 - **PM2.5** - kit BdP_33040d54 sensor type **SDS011** with kit BdP_33040d54 sensor type **PPD42NS**:



nr samples 732, min=2106.00, max=4894.29
avg=2421.13, std dev=280.23
R-squared:
0.5238

Best fit polynomial coefficients:
[-3.396e+04, 1.496e+01]

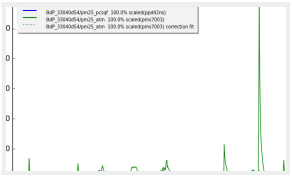
Correlation 29 - **PM2.5** - kit BdP_33040d54 sensor type **SDS011** with kit BdP_33040d54 sensor type **PMS7003**:



nr samples 732, min=100.60, max=115010.00
avg=3464.11, std dev=6763.38
R-squared:
0.9748

Best fit polynomial coefficients:
[-6.591e+02, 8.457e-01]

Correlation 30 - **PM2.5** - kit BdP_33040d54 sensor type **PPD42NS** with kit BdP_33040d54 sensor type **PMS7003**:

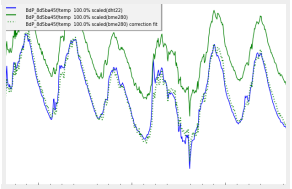


nr samples 732, min=100.60, max=115010.00
avg=3464.11, std dev=6763.38
R-squared:
0.5807

Best fit polynomial coefficients:
[2.312e+03, 3.157e-02]

Measurement TEMP correlation key values

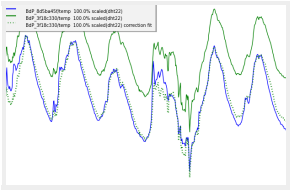
Correlation 31 - **TEMP** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_8d5ba45f sensor type **BME280**:



nr samples 624, min=26.29, max=31.92
avg=29.25, std dev= 1.18
R-squared:
0.9589

Best fit polynomial coefficients:
[-5.053e+00, 1.110e+00]

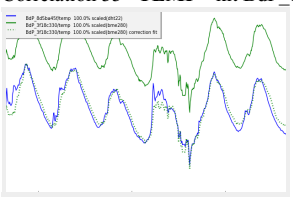
Correlation 32 - **TEMP** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_3f18c330 sensor type **DHT22**:



nr samples 624, min=25.65, max=31.98
avg=29.34, std dev= 1.21
R-squared:
0.9316

Best fit polynomial coefficients:
[-3.704e+00, 1.061e+00]

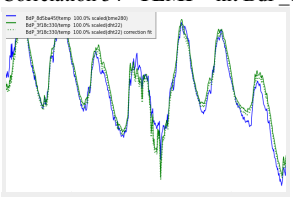
Correlation 33 - **TEMP** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_3f18c330 sensor type **BME280**:



nr samples 624, min=27.14, max=33.73
avg=30.95, std dev= 1.25
R-squared:
0.9102

Best fit polynomial coefficients:
[-3.985e+00, 1.015e+00]

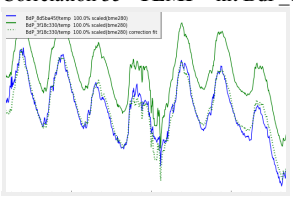
Correlation 34 - **TEMP** - kit BdP_8d5ba45f sensor type **BME280** with kit BdP_3f18c330 sensor type **DHT22**:



nr samples 731, min=25.65, max=31.98
avg=29.13, std dev= 1.32
R-squared:
0.9472

Best fit polynomial coefficients:
[1.858e-01, 9.889e-01]

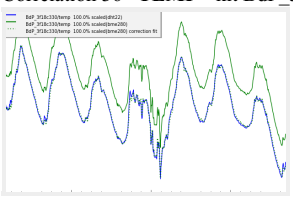
Correlation 35 - **TEMP** - kit BdP_8d5ba45f sensor type **BME280** with kit BdP_3f18c330 sensor type **BME280**:



nr samples 731, min=27.14, max=33.73
avg=30.72, std dev= 1.37
R-squared:
0.9403

Best fit polynomial coefficients:
[-1.662e-01, 9.490e-01]

Correlation 36 - **TEMP** - kit BdP_3f18c330 sensor type **DHT22** with kit BdP_3f18c330 sensor type **BME280**:

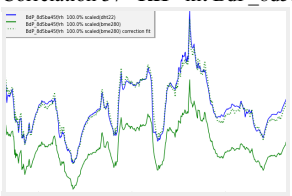


nr samples 732, min=27.14, max=33.73
avg=30.72, std dev= 1.37
R-squared:
0.9953

Best fit polynomial coefficients:
[-3.949e-01, 9.609e-01]

Measurement RH correlation key values

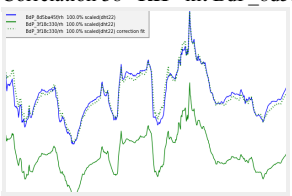
Correlation 37 - **RH** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_8d5ba45f sensor type **BME280**:



nr samples 624, min=35.96, max=56.00
avg=44.11, std dev= 3.39
R-squared:
0.9716

Best fit polynomial coefficients:
[-7.125e+00, 1.325e+00]

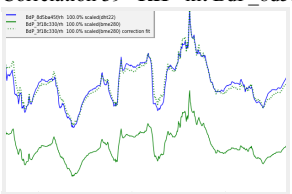
Correlation 38 - **RH** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_3f18c330 sensor type **DHT22**:



nr samples 624, min=30.02, max=53.51
avg=38.78, std dev= 3.89
R-squared:
0.9560

Best fit polynomial coefficients:
[6.828e+00, 1.147e+00]

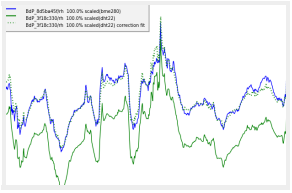
Correlation 39 - **RH** - kit BdP_8d5ba45f sensor type **DHT22** with kit BdP_3f18c330 sensor type **BME280**:



nr samples 624, min=29.35, max=49.46
avg=36.65, std dev= 3.28
R-squared:
0.9461

Best fit polynomial coefficients:
[1.731e+00, 1.352e+00]

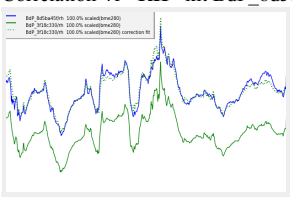
Correlation 40 - **RH** - kit BdP_8d5ba45f sensor type **BME280** with kit BdP_3f18c330 sensor type **DHT22**:



nr samples 731, min=30.02, max=53.51
avg=38.84, std dev= 3.65
R-squared:
0.9529

Best fit polynomial coefficients:
[1.062e+01, 8.660e-01]

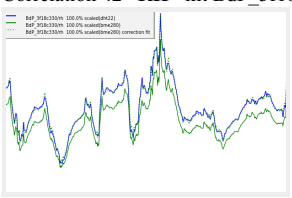
Correlation 41 - **RH** - kit BdP_8d5ba45f sensor type **BME280** with kit BdP_3f18c330 sensor type **BME280**:



nr samples 731, min=29.35, max=49.46
avg=36.72, std dev= 3.08
R-squared:
0.9471

Best fit polynomial coefficients:
[6.677e+00, 1.024e+00]

Correlation 42 - **RH** - kit BdP_3f18c330 sensor type **DHT22** with kit BdP_3f18c330 sensor type **BME280**:



nr samples 732, min=29.35, max=49.46
avg=36.71, std dev= 3.08
R-squared:
0.9941

Best fit polynomial coefficients:
[-4.569e+00, 1.182e+00]