

Validyne P56 Serial Protocol

Assign RS485 Address

Host Command: >99123456XX

99 = Broadcast for Address Code (all units listen)

123456 = Six Digit P56 Serial Number

XX = Address Assigned, 01 to 98

P56 Response: <XX123456

123456 = Six Digit Unit Serial Number

XX = Address Assigned, 01 to 98

Host Commands

>XXC

Where: > Command Header (ASCII 3e)
XX 2 digit RS485 address code, 0 to 99
M Command Code
Z = Set P56 Zero - if pressure reading within 10% of Zero
S = Set P56 Span - if pressure reading within 10% of FS
G = Ping
C=Calibration & Model Data
T = Temp Reading Request
P = Pressure Reading Request

P56 Responses

<XXM?*value*U

Where: < Data Response Header (ASCII 3c)
XX 2 digit address code, 0 to 99
M Command Identifier
Z = Set P56 Zero
S = Set P56 Span
G = Ping
C = Calibration & Model Data
? = Command Fails
* = Marker in string where value starts when value is returned
U = Units F, I or P
T = Temperature Reading, Deg F
Format: 0.0 F to 160.0 F

P = Pressure Reading, In H2O (Ranges < -30) psid (all other ranges)

-20 Range	0.00 to +/-3.50 In H2O
-22 Range	0.00 to +/-5.50 In H2O
-24 Range	0.00 to +/-8.90 In H2O
-26 Range	0.00 to +/-14.00 In H2O
-28 Range	0.00 to +/-22.20 In H2O
-30 Range	0.000 to +/-1.250 Psid
-32 Range	0.000 to +/-2.000 Psid
-34 Range	0.00 to +/-3.20 Psid
-36 Range	0.00 to +/-5.00 Psid
-38 Range	0.00 to +/-8.00 Psid
-40 Range	0.00 to +/-12.50 Psid
-42 Range	0.00 to +/-20.00 Psid
-44 Range	0.0 to +/-32.0 Psid
-46 Range	0.0 to +/-50.0 Psid
-48 Range	0.0 to +/-80.0 Psid
-50 Range	0.0 to +/-125.5 Psid
-52 Range	0.0 to +/-200.0 Psid
-54 Range	0 to +/-320 Psid
-56 Range	0 to +/-500 Psid
-58 Range	0 to +/-800 Psid
-60 Range	0 to +/-1250 Psid
-62 Range	0 to +/-2000 Psid
-64 Range	0 to +/-3200 Psid

Examples:

Host String: >01Z (set zero at P56 RS485 address 01)

P56 Reply: <01Z (set zero successful)
<01Z? (set zero not successful)

Host String: >01S (set span)

P56 Reply: <01S (set span successful)
<01S? (set span unsuccessful)

Host String: >01T (get temp reading)

P56 Reply: <01T*79.3*F (temp of 79.3F returned)

Host String: >01T (get temp reading)

P56 Reply: <01T? (temp reading offscale or not available)

Host String: >01P (get pressure reading)

P56 Reply: <01P*172.3*P (pressure reading of 172.3 Psid returned)

Host String: >01P (get pressure reading)

P56 Reply: <01P*15.33*I (pressure reading of 15.33 In H2O returned)

Host String: >01P (get pressure reading)

P56 Reply: <01P? (reading offscale)

Host String: >01C (get calibration and model data)

P56 Reply: <01C*P56D1N132S4A*123456*06-26-07*2.000P

P56D-1-N-1-32-S-4-A = Model Number

123456 = serial number

06-26-07 = calibration date

2.000P = calibrated FS, psid