ProVu PD6300 Pulse Input Rate/Totalizer
Quick Start Guide

MeterView Pro
USB Install

Thank you for your purchase of the ProVu PD6300 rate/totalizer.

This quick start guide will briefly describe some of the common setup procedures for this meter.

This guide includes:

For additional information about the ProVu PD6300 rate/totalizer not covered in this quick start guide, please consult the instruction manual included on the CD or available at www.predig.com.

MENU Menu Button – Use this button to access *Programming Mode* and to return to *Run Mode*.

Note: If you think you have made a mistake while programming the meter, use this button to return the meter to *Run Mode* without saving.

F1 Right/F1 Button – Use this button to change the selected digit while inputting a numeric value in *Programming Mode*.

F2 Up/F2 Button – Use this button to increment the selected digit while inputting a numeric value in *Programming Mode*.

F3 Enter/F3 Button – Use this button to access or accept a menu item while in *Programming Mode*.

ProVu® Series

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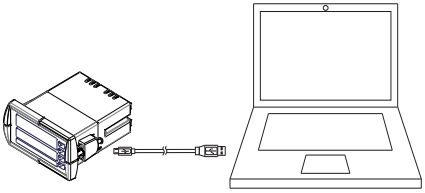
Installing MeterView® Pro

The meter can be programmed using MeterView Pro. This software can be installed on any Microsoft® Windows® (2000/XP/Vista/7/8/10) computer by connecting to the meter's onboard USB. The meter is powered by the USB connection, so there is no need to wire anything prior to programming the meter.

1

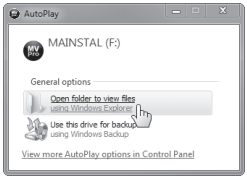
Connect the provided USB cable to the meter and the computer as shown. The computer will automatically install the driver software it needs to talk to the meter.

Note: Only one meter may be connected at a time. Attaching multiple meters will cause a conflict with the meter software.

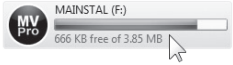


2

Once the driver is installed, an AutoPlay dialog should appear for the drive "MAINSTAL." Click "Open folder to view files."

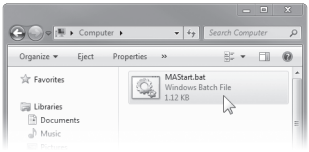


If the computer does not display an AutoPlay dialog for the drive "MAINSTAL," you should open *My Computer* and double-click on the drive labeled "MAINSTAL."



3

Double-click on the file named "MAStart."

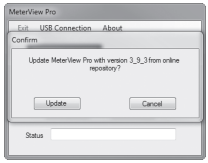


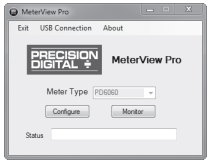
The program will open a few windows and install two programs on your computer. Simply follow the onscreen instructions until you see one of the dialogs in step 4.

Note: If you receive a *User Account Control* warning, click "Yes."

4

If there is an update available, click the "Update" button to install the new version. Otherwise, click "Configure" to begin programming your meter.





Note: When you update your MeterView Pro software, you will be asked if you want to update the setup files located on the meter itself. This way, you will always have the most current version on the meter for future installs.

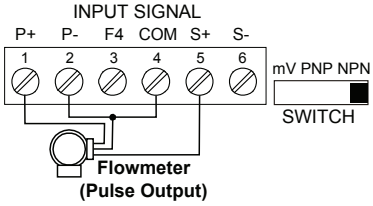
Note: The remainder of this guide will explain how to configure your meter using either the MeterView Pro software or the configuration menus in the meter itself. It is only necessary to perform one of these operations in order to configure the meter for a desired setting.

Basic Wiring for PROVU Meter

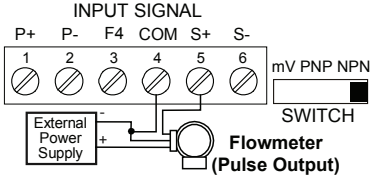
The connectors label, affixed to the top of the meter, shows the location of all available connectors. Connect your wires to the provided connectors and plug into the meter as indicated.

Pulse Input Wiring

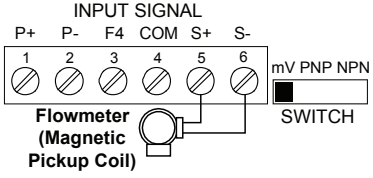
Wiring for a flowmeter powered by an internal power supply.



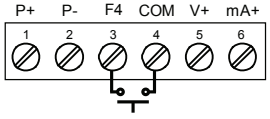
Wiring for a flowmeter powered by an external power supply.



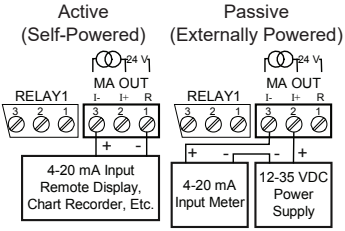
Wiring for a self-powered magnetic pickup coil flowmeter.



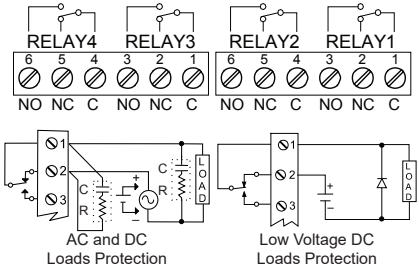
F4 Digital Input Connection



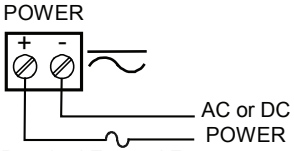
4-20 mA Output Wiring[1]



Relay Connections[2]



Power Connection



Required External Fuse:
5 A max, 250 V Slow Blow

Consult the PD6300 instruction manual located on the included CD or available online at www.predig.com for additional wiring diagrams.

[1] PROVU models with 4-20 mA output option (PD6300-XX3/5/7)
[2] PROVU models with relay option (PD6300-XX2/4/5/7)

Program Pulse Input and Totalizer

Program the PROVU meter to accept a pulse input and display a value. The flowmeter you are using in your facility will have a K-Factor assigned to it by the manufacturer. This is either notated on the flowmeter itself or somewhere in the instruction manual included with the flowmeter. This number is necessary in order to tell the PROVU meter how many pulses it will receive depending on the flow rate.

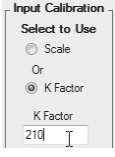
For example: If the K-Factor of your flowmeter is 210, meaning that for every U.S. gallon of flow per second it will transmit 210 pulses, then you should enter the value 210.000 at the FACtor (K-Factor) menu during this setup procedure.

Note: K-Factors are almost always given in U.S. gallons. Make certain that you take the unit of measure used by the flowmeter manufacturer into account when programming the rate/totalizer.

MeterView Pro Software

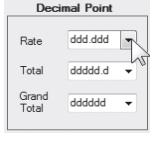
1

On the *Programming* tab, under *Input Calibration*, select "K Factor" and enter the flowmeter's K-Factor.



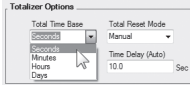
2

Select the desired decimal point location for Rate, Total and Grand Total.



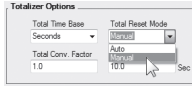
3

Under *Totalizer Options*, select the appropriate time base for your rate measurement (such as gallons per **second**).



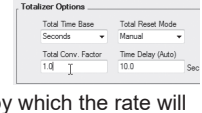
4

Select whether the total should reset *automatically* or *manually*. If *Auto* is selected, use the *Time Delay* field below to input the amount of time (in seconds) until it resets.



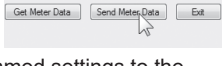
5

In the field labeled *Total Conv. Factor*, you may enter a multiplier by which the rate will be factored before being added to the total.



6

Click the *Send Meter Data* button to send your programmed settings to the meter.



Meter Configuration Menus

1

Press MENU to enter *Programming Mode*, press F3 to access the SEtuP (Setup) menu.

2

Press F2 to display the dEc Pt (Decimal Point) menu and press F3 to access.

3

Press F2 to select the parameter for which you want to assign the decimal point and press F3.

4

Press F1 until the desired decimal point location is displayed and press F3 to accept. Continue to press F3 to assign the decimal point location to the subsequent parameters.

5

Press F3 to access the ProG (Program) menu.

6

Press F3 to access the InCAL (Input Calibration) menu.

7

Press F3 to access the FActor (K-Factor) menu. This is where you will enter the K-Factor provided by your flowmeter manufacturer.

8

Press F1 until the desired decimal point location for your K-Factor is displayed and press F3.

9

Use F1 to change which digit is selected and F2 to increment the selected digit. Press F3 when done.

10

Press F3 to access t tb (Total Time Base).

Note: The time base for rate can be in units per second, per minute, per hour, or per day.

11

Press F2 to select the appropriate time base and press F3 to accept.

12

Press F3 to access t CF (Total Conversion Factor).

Note: The conversion factor for total calculation is the number by which the rate will be multiplied before being added to the total.

13

Press F1 until the desired decimal point location for the conversion factor is displayed and press F3 to accept.

14

Use F1 to change which digit is selected and F2 to increment the digit. Press F3 when done.

Note: A conversion factor of 1.0 disables this feature.

15

Press F3 to access the t rSt (Total Reset) menu.

Note: This menu allows you to set automatic or manual total reset. If you would like to be able to reset the total using one of the function keys then this must be set to mAn (Manual).

16

Press F2 to select either mAn (Manual) or Auto (Automatic) and press F3 to accept. Press MENU to return the meter to *Run Mode*.

Note: If Auto (Automatic) is chosen, an additional menu will be displayed: t dLY (Time Delay), which is the delay time before the total is reset. A relay assigned to total will reset the total value once its set point has been reached.

Note: Time base, conversion factor and reset may also be set for the grand total. These menus are Gt tb, Gt CF, and Gt rSt and are accessible directly following the total menus.

Program Relays for Automatic Reset

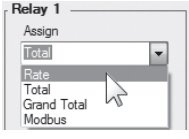
Program the PROVU meter to turn on the relays at programmable set points and turn off the relays at reset points.

Note: Only relays assigned to rAtE (Rate) will require a reset point value. If the *set point* is **higher** than the *reset point*, the relay will be a **high alarm**. If the *set point* is **lower** than the *reset point*, the relay will be a **low alarm**.

MeterView Pro Software

1

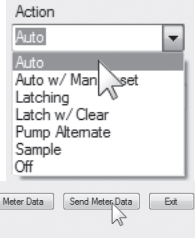
On the *Relays* tab, in the desired relay section, assign the relay to a desired parameter (i.e. rate, total, grand total, or Modbus®).



2

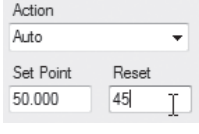
Select "Auto" from the *Action* drop down list.

Note: See PD2-6200 Instruction Manual for details on additional relay actions.



3

Enter the set and reset point values in the provided fields.



4

Click the *Send Meter Data* button to send your programmed settings to the meter.

Meter Configuration Menus

1

Press MENU to enter *Programming Mode*, press F3 to access the SEtuP (Setup) menu.

2

Press F2 until the rELAY (Relay) menu is displayed and then press F3 to access.

3

Press F3 to access the ASSIGn (Relay Assignment) menu.

4

Press F2 until the relay number you wish to assign a parameter to is displayed (ASSIGn 1-8) and then press F3 to access.

5

Press F2 until the appropriate parameter (i.e. rate, total, or grand total) is displayed and then press F3 to accept. Continue to assign additional relays to subsequent parameters.

6

Press F2 until the appropriate relay number is displayed (rLY 1-8) and then press F3 to access.

7

Press F3 to access the Act (Relay Action) menu.

8

Press F3 to accept Auto (Automatic Reset).

9

Press F3 to access the SEt (Relay Set Point) menu.

10

Use F1 to change which digit is selected and F2 to increment the digit. Press F3 when done.

11

Press F3 to access the rSt (Relay Reset Point) menu.

Note: The reset menu will only be displayed is the relay has been assigned to rATE (Rate). totAL (Total) and GtotAL (Grand Total) relays do not have reset points.

12

Use F1 to change which digit is selected and F2 to increment the selected digit. Press F3 when done to accept the new set point value. Press MENU to return to *Run Mode*.

Note: If you need to program more relays, simply repeat steps 6-12 for each additional relay. Up to eight (8) relays can be installed using the PROVU meter. Consult the PROVU PD6300 Instruction Manual for information on additional relay action types.

Program 4-20 mA Analog Output

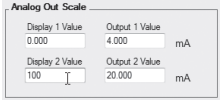
Program the PROVU meter to output an analog signal based on its display value. This signal is commonly output to a PLC or chart recorder.

Note: By default, the analog output will transmit the rate value as it is displayed on the meter. It is possible to output the total, grand total or some other value. Please refer to the steps on the following page for information on setting the output source.

MeterView Pro Software

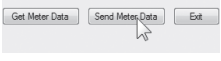
1

On the *Setup* tab, under *Analog Out Scale*, enter your desired display values in the provided fields.



2

Click the *Send Meter Data* button to send your programmed settings to the meter.



Meter Configuration Menus

1

Press MENU to enter *Programming Mode*, press F3 to access the SEtuP (Setup) menu.

2

Press F2 until the Aout (Analog Out) menu is displayed and then press F3 to access.

3

Press F3 to access the d iS 1 (Display 1) menu. This is the display value at which the low range of the output will be transmitted.

4

Use F1 to change which digit is selected and F2 to increment the selected digit. Press F3 when done to accept the new display value.

5

Press F3 to access the Out 1 (Output 1) menu. This is the output signal which represents dISP 1.

6

The default value of 04.000 (4.000 mA) should be sufficient for most applications. Press F3 to accept.

7

Press F3 to access the dISP 1 (Display 2) menu. This is the display value at which the high range of the output will be transmitted.

8

Use F1 to change which digit is selected and F2 to increment the selected digit. Press F3 when done to accept the new display value.

9

Press F3 to access the Out 2 (Output 2) menu. This is the output signal which represents dISP 2.

10

The default value of 20.000 (20.000 mA) should be sufficient for most applications. Press F3 to accept. Press MENU to return to *Run Mode*.

Return Meter to Factory Defaults

If a mistake has been made while programming the meter and it is unclear where the error occurred, the best option may be to perform a factory reset of the meter and begin again. These steps show how to perform a factory reset of the PROVU meter.

MeterView Pro Software

1

On the *Advanced Features* tab, in the bottom left-hand corner, click the *Reset Meter Factory Defaults* button.

2

In the confirmation window that appears, click *OK*. The meter will reset to factory defaults.

Meter Configuration Menus

1

Press and hold MENU for five seconds to enter the *Advanced Features Menu*.

2

Press F2 until the diAG (diagnostics) menu is displayed.

3

Press and hold F1 until the meter flashes rESEt (reset). Immediately press F3 to reset the meter to factory defaults.

4

The meter will flash all of the LED segments and then display ProcES (Process). The meter has been reset to its defaults.