

ProVu PD6200 Analog Input Rate/Totalizer

Quick Start Guide



Thank you for your purchase of the ProVu PD6200 rate/totalizer.

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

This guide includes:

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For additional information about the ProVu PD6200 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 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.

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

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

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

PROVU[®]

SERIES

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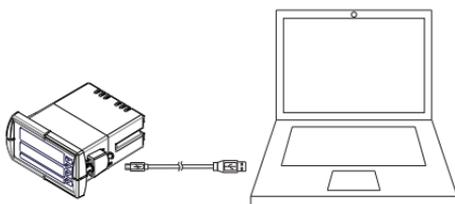
Installing MeterView® Pro

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

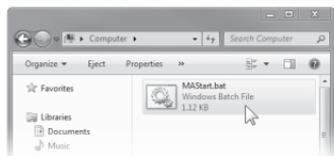
Connect the provided USB cable to the meter and the computer as shown. The computer will automatically install the driver software it needs to talk to the meter.

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



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."

2

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

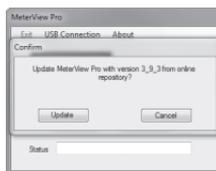


If the computer does not display an AutoPlay dialog for the drive "MAINSTAL," you should open *My Computer* and double-click on the drive labeled "MAINSTAL."



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.

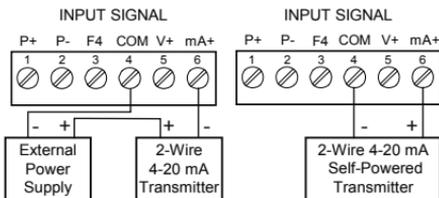
Note: The remainder of this guide will explain how to configure your meter using either the MeterView Pro software or the configuration menus in the meter itself. It is only necessary to perform one of these operations in order to configure the meter for a desired setting.

Basic Wiring for PROVu Meter

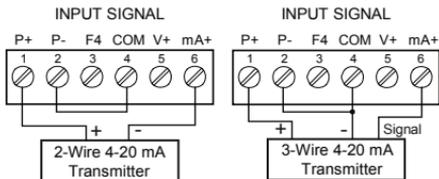
The connectors label, affixed to the top of the meter, shows the location of all available connectors. Connect your wires to the provided connectors and plug into the meter as indicated.

4-20 mA Input Wiring

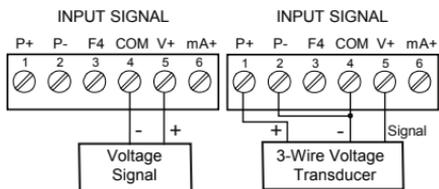
Wiring for a 4-20 mA input using either an external power supply or self powered transmitter.



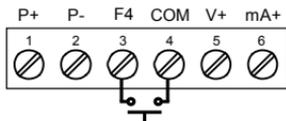
Wiring for a 4-20 mA input using internal power supply.



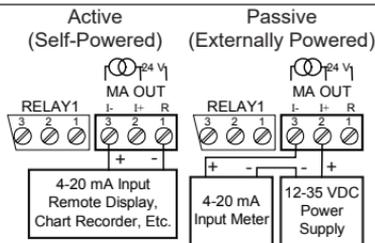
0-10 V Input Wiring



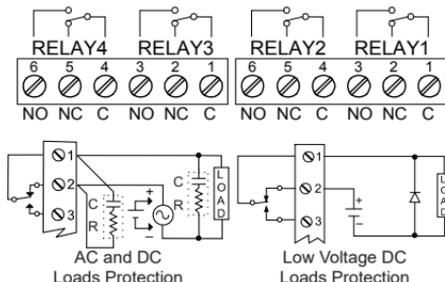
F4 Digital Input Connection



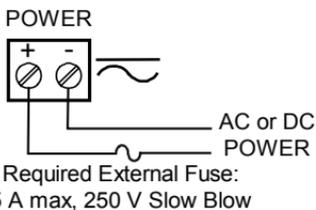
4-20 mA Output Wiring¹



Relay Connections²



Power Connection



For additional wiring diagrams, consult the PD6200 instruction manual located on the included CD or available online at www.predig.com.

¹ ProVu models with 4-20 mA output option (PD6200-XX3/5/7)
² ProVu models with relay option (PD6200-XX2/4/5/7)

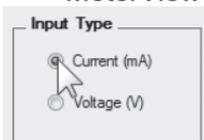
Program and Scale the Input

Program the PROVU meter to accept an analog input and display a value. When the meter is receiving the low end of the input, it will display the low end of the display range; when receiving the high end of the input, it will display the high end of the display range. The input values (INP_1 & INP_2) can be changed if needed, but the default values are sufficient for most flowmeters.

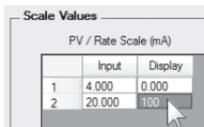
For example: If the meter were setup to accept a 4-20 mA input and display the flow of a pipe whose rate of flow is between 0 and 100 gal/s, the transmitter would send a 4 mA signal when there is zero flow and a 20 mA signal when there is maximum flow. The meter should be programmed to interpret these inputs on a display range of 0-100, so that at 4 mA the meter will display 0 and at 20 mA the meter will display 100.

===== MeterView Pro Software =====

1
On the *Setup* tab, under *Input Type*, select the desired input.



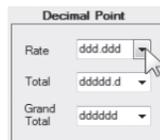
3
Under *Scale Values*, enter the desired low and high display values in the *Display* column.



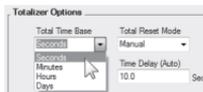
5
Select whether the total should reset *automatically* or *manually*. If *Auto* is selected, use the *Time Delay* field below to enter the amount of time (in seconds) until it resets.



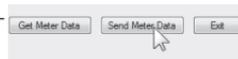
2
On the *Programming* tab, select the desired decimal point location for Rate, Total and Grand Total.



4
Under *Totalizer Options*, select the appropriate time base for your rate measurement (such as gallons per **second**).



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 **F1** to access the *SETUP* (Setup) menu.



2
Press **F1** to access the *INPUT* (Input) menu.



3
Press **F2** to select either *mRA* (milliamps) or *Volts* and press **F1** to accept.



4
Press **F1** to access the *TOTAL* (Totalizer) menu and press **F1** to accept *YES* (enable).



5
Press **F2** to display the *dEc Pt* (Decimal Point) menu and press **F1** to access.



6
Press **F2** to select the parameter for which you want to assign the decimal point and press **F1**.



7

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



8

Press  to access the *Prog* (Program) menu.



9

Press  to access *InCAL* (Input Calibration).



10

Press  to access the *SCALE* (Scale) menu.



11

Press  three times, until *d 15 1* (Low Display Value) is displayed. Use  to change which digit is selected and  to increment the digit. Press  when done.



12

Press  three times, until *d 15 2* (High Display Value) is displayed. Use  to change which digit is selected and  to increment the digit. Press  and *SAUEd* will display momentarily.



13

Press  to access *t t b* (Total Time Base).



14

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



15

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



16

Press  until an appropriate decimal point location for the conversion factor is displayed and press  to accept.



17

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



18

Press  to access the *t rSt* (Total Reset) menu. Press  to select either *MAN* (Manual) or *Auto* (Automatic) and press  to accept. Press  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 *t t b*, *t CF*, and *t rSt* and are accessible directly following the total menus.

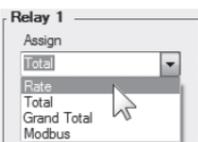
Program Relays for Automatic Reset

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

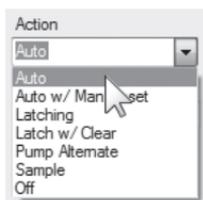
Note: Only relays assigned to *rATE* (Rate) will require a reset point value; total and grand total only require set points. If the *set point* is **higher** than the *reset point*, the relay will be a **high alarm**. If the *set point* is **lower** than the *reset point*, the relay will be a **low alarm**.

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®).

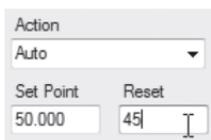


2
Select "Auto" from the *Action* drop down list.
Note: See PD6200

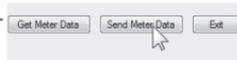


Instruction Manual for details on additional relay actions.

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  to enter *Programming Mode*, press  to access the *SEtUP* (Setup) menu.



2
Press  until the *rELAY* (Relay) menu is displayed and then press  to access.



3
Press  to access the *ASSIGN* (Relay Assignment) menu.



4
Press  until the relay number you wish to assign a parameter is displayed (*ASSIGN 1-B*) and then press  to access.



5
Press  until the appropriate parameter (i.e. rate, total or grand total) is displayed and then press  to accept. Continue to assign additional relays to subsequent parameters.



6
Press  until the appropriate relay number is displayed (*rELAY 1-B*) and then press  to access.



7

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



8

Press  to accept *Auto* (Automatic Reset).



9

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



10

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



11

Press  to access the *rSEt* (Relay Re-set Point) menu.



12

Use  to change which digit is selected and  to increment the selected digit. Press  when done to accept the new set point value. Press  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 on the PROVu meter. Consult the PROVu PD6200 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 *Program Analog Output Source* on the following page for information on changing the output parameter.

MeterView Pro Software

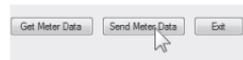
1

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

Analog Out Scale	
Display 1 Value 0.000	Output 1 Value 4.000 mA
Display 2 Value 100	Output 2 Value 20.000 mA

2

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



Meter Configuration Menus

1

Press  to enter *Programming Mode* and press  to access the *SEtUP* (Setup) menu.



2

Press  until the *Rout* (Analog Output) menu is displayed and then press  to access.



3

Press  to access the *d 15 1* (Display 1) menu. This is the display value at which the low range of the output will be transmitted.



5

Press  to access the *Out 1* (Output 1) menu. This is the output signal which represents *d 15 1*.



7

Press  to access the *d 15 2* (Display 2) menu. This is the display value at which the high range of the output will be transmitted.



9

Press  to access the *Out 2* (Output 2) menu.



4

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



6

The default value of *04000* (4 mA) should be sufficient for most applications. Press  to accept.



8

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



10

Press  to accept the default value.

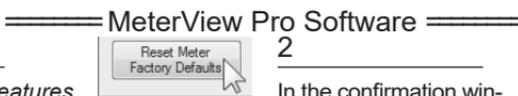


Return Meter to Factory Defaults

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.

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.



1

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

Meter Configuration Menus



2

Press  until the *d 1RG* (Diagnostics) menu is displayed.



3

Press and hold  until the meter flashes *rESEt* (Reset). Immediately press  to reset.



4

The meter will flash all of the LED segments and then display *ProcES* (Process).



8