Helios PD2-6200 Analog Input Rate/Totalizer
Quick Start Guide

MeterView Pro
USB Install

Thank you for your purchase of the Helios PD2-6200 large display meter!

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

This guide includes:

Additional information about the Helios PD2-6200 meter can be found in the instruction manual included on the CD or available at www.predig.com.

Menu Button – 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/Reset Button – Change the selected digit while inputting numeric values in *Programming Mode*.

Up/Max Button – Increment the selected digit while inputting numeric values in *Programming Mode*.

Enter Button – Access a menu or accept an option while in *Programming Mode*.

Programming buttons are located under the bottom door panel. They can be accessed by loosening the securing screw and lifting the door panel.

HELIOS

PRECISION DIGITAL ÷

233 South Street
Hopkinton MA 01748-2208 USA
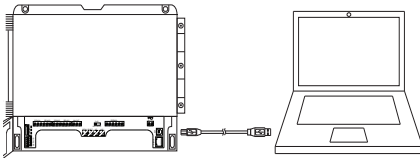Tel. (508) 655-7300   www.predig.com

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.
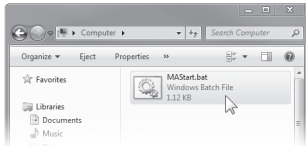
1

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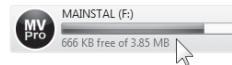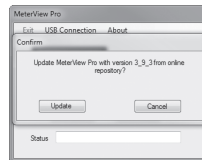
Note: If you receive a *User Account Control* warning, click "Yes."

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 options in order to configure the meter for a desired setting.
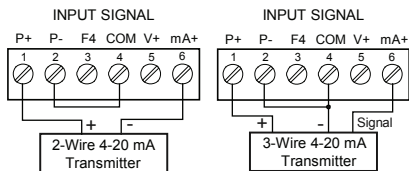
Basic Wiring for Helios Meter

The connectors label, affixed to the inside of the front door panel, shows the location of all available connectors. Run wires through conduit holes at the base of the meter, connect to the provided screw terminals, and plug into the meter as indicated.
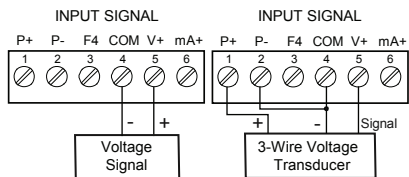
4-20 mA Input Wiring

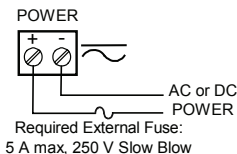Wiring for a 4-20 mA input using either an external power supply or self powered transmitter.
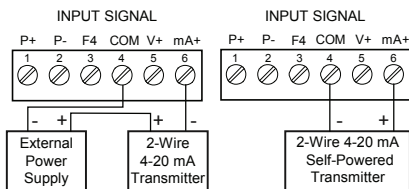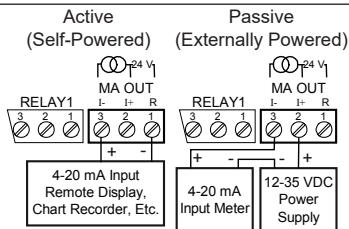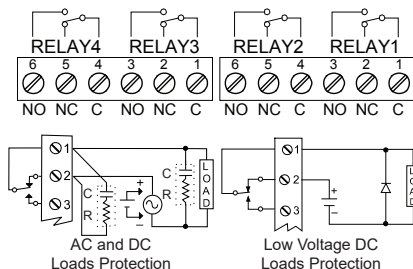

Wiring for a 4-20 mA input using internal power supply.

0-10 V Input Wiring

Power Connection

POWER

AC or DC
POWER
Required External Fuse:
5 A max, 250 V Slow Blow

4-20 mA Output Wiring[1]

Active
(Self-Powered)   Passive
(Externally Powered)

Relay Connections[2]

Digital Inputs and Outputs[3]
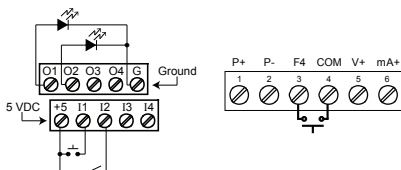
Consult the PD2-6200 instruction manual located on the included CD or available online at www.predig.com for additional wiring diagrams.

[1] Helios models with 4-20 mA output option (PD2-6200-xH7)
[2] Helios models with relay option (PD2-6200-xH7)
[3] If accessible pushbuttons are required once initial programming is complete, the use of digital inputs is recommended.

Program and Scale the Input

Program the Helios meter to accept a 4-20 mA or 0-10 V input and display a value associated with that range. When the meter is receiving a 4 mA or 0 V input, it will display the low end of the display range; when receiving a 20 mA or 10 V input, it will display the high end of the display range. The input values can be changed if needed, but the default values are sufficient for most transmitter types.

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 will only ever be 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 max flow. The meter should be programmed to interpret these inputs 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.
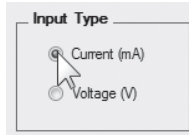
2

On the *Programming* tab, select the desired decimal point location for Rate, Total and Grand Total.
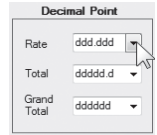
3

Under *Scale Values*, enter the desired low and high display values in the *Display* column.
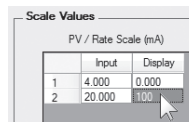
4

Under *Totalizer Options*, select the appropriate time base for your rate measurement (such as gallons per **second**).
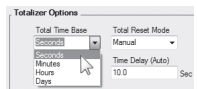
5

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.
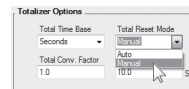
6

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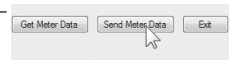
====== Meter Configuration Menus ======

1

Press [MENU] to enter *Programming Mode*, press [ENTER F3] to access the 5EtuP (Setup) menu.

5EtuP

2

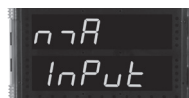Press [ENTER F3] to access the InPut (Input) menu.

InPut
5EtuP

3

Press [F2 MAX] to select either mA or voltage (nⱭR or UoLt) and then press [ENTER F3] to accept.

nⱭR
InPut

4

Press [ENTER F3] to access the totⱭL (Totalizer) menu, press [F2 MAX] to select YES or no, then press [ENTER F3].

Note: Most applications will require the totalizer to be active (select YES).

totⱭL
InPut

4

5

Press ↑ F2 MAX until the dEc Pt (Decimal Point) menu is displayed and press ↵ F3 ENTER.

`dEc Pt`
`SEtuP`

6

Press ↵ F3 ENTER to access the dEc Pt (Decimal Point) menu for the rAtE (Rate) parameter.

`rAtE`
`dEc Pt`

7

Press → F1 RESET until the desired decimal point location is displayed and press ↵ F3 ENTER.
Continue to press ↵ F3 ENTER to assign decimal point locations to the total and grand total.

`dddd.dd`
`dEc Pt`

8

Press ↵ F3 ENTER to access the ProG (Program) menu.

`ProG`
`SEtuP`

9

Press ↵ F3 ENTER to access the InCAL (Input Cal) menu.

`InCAL`
`ProG`

10

Press ↵ F3 ENTER to access the SCALE (Scale) menu.

`SCALE`
`InCAL`

11
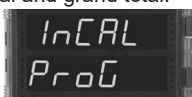
Press ↵ F3 ENTER three times, until d iS 1 (Low Display Value) is displayed. Press → F1 RESET to change which digit is selected, press ↑ F2 MAX to increment the selected digit, and press ↵ F3 ENTER when done.

`000000.00`
`d iS 1`

12

Press ↵ F3 ENTER three times, until d iS 2 (High Display Value) is displayed. Using → F1 RESET and ↑ F2 MAX, select your desired value. When done, press ↵ F3 ENTER. The display will show SAUEd (Saved) momentarily.

`0 100.00`
`d iS 2`

13

Press ↵ F3 ENTER to access the t tb (Total Time Base) menu.
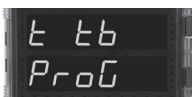
Note: This menu will allow you to set the time base for rate measurement (i.e. units per second, per minute, per hour, or per day).

`t tb`
`ProG`

14

Press ↑ F2 MAX to select the appropriate time base and press ↵ F3 ENTER to accept.

`SEc`
`t tb`

15

Press ↵ F3 ENTER three times, until t rSt (Total Reset) is displayed. Press ↵ F3 ENTER to access.

`t rSt`
`ProG`

16
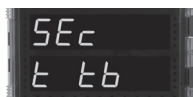
Press ↑ F2 MAX to select either nMAn (Manual) or Auto (Automatic) total reset and press ↵ F3 ENTER to accept.

`nMAn`
`t rSt`

Note: Time base and total reset may also be set for the grand total. These menus are Gt tb and Gt rSt and are accessible directly following the total menus.
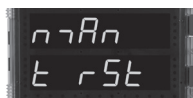
Note: If Auto (Automatic) is chosen, an additional menu will be displayed: t dLY (Time Delay). This menu will allow you to set a delay time (in seconds) before the total is reset.

Program Relays for Automatic Reset

Program the Helios meter to turn the relays on at programmable set points and turn them off 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**.
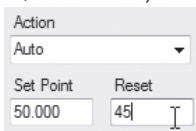
======= MeterView Pro Software =======

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®).
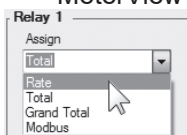
2

Select "Auto" from the *Action* drop down list.
Note: See PD2-6200 Instruction Manual for details on additional relay actions.
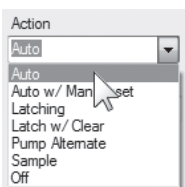
3

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.
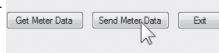
======= Meter Configuration Menus =======

1

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

`SEtuP`

2

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

`rELAY`
`SEtuP`

3

Press ↵ to access the ASSiGn (Relay Assignment) menu.

`ASSiGn`
`rELAY`

4

Press ↑ to select the relay you wish to assign (ASSiGn 1-4) and then press ↵ to access.
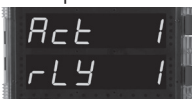
`ASiGn 1`
`ASSiGn`

5

Press ↑ until the appropriate parameter is displayed and then press ↵ to accept.
Note: Once the assignment has been programmed for relay 1, you can continue to assign relays by accessing the subsequent menus.

`rAtE`
`ASSiGn`

6

Press ↑ until the appropriate relay number is displayed (rLY 1-4) and then press ↵.

`rLY 1`
`rELAY`

7

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

`Act 1`
`rLY 1`

8

Press ↵ to accept Auto (Automatic Reset).

`Auto`
`Act 1`

6

9

Press [F3 ENTER] to access the `SEE 1` (Relay 1 Set Point) menu.
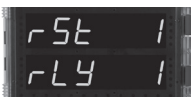
```
SEt   1
rLY   1
```

10

Using [F1 RESET] to change the selected digit and [F2 MAX] to increment that digit, enter the desired set point value. Press [F3 ENTER] when done.

```
0050.00
SEt   1
```

11

Press [F3 ENTER] to access the `rSt 1` (Relay 1 Reset Point) menu.

```
rSt   1
rLY   1
```

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

Using [F1 RESET] and [F2 MAX] as above, select your desired reset value. Press [F3 ENTER] when done to accept the new set point value. Press [MENU] to return to *Run Mode*.

```
0045.00
rSt   1
```

Note: Use [F2 MAX] to select a different relay during step 3. If you need to program more relays, simply repeat steps 3-9 for each additional relay. Consult the Instruction Manual for information on additional relay action types.
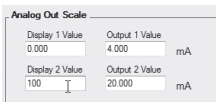
Program 4-20 mA Analog Output

Program the Helios 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 output 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 PD2-6200 Instruction Manual for information on programming the analog output source.
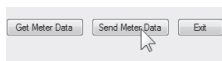
===== MeterView Pro Software =====

1

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

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

2

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

[Get Meter Data] [Send Meter Data] [Exit]

===== Meter Configuration Menus =====

1

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

```
SEtuP
```

2

Press [F2 MAX] until the `Aout` (Analog Out) menu is displayed and then press [F3 ENTER].

```
Aout
SEtuP
```
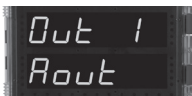
3

Press [ENTER] to access the $d \cdot 5 \cdot 1$ (Display 1)

`d i5 1`
`Aout`

menu. This is the display value at which the low range of the output will be transmitted.

4

Use [RESET] to change the selected digit and [F2 MAX] to

`000000`
`d i5 1`

increment that digit. Press [F3 ENTER] when done to accept the new value.

5
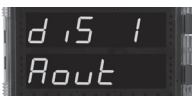
Press [F3 ENTER] to access the $Out \cdot 1$ (Output 1) menu.

`Out 1`
`Aout`

This is the output signal which represents the value set for $d \cdot 5 \cdot 1$.

6

The default value of 04.000 (4.000 mA)

`04.000`
`Out 1`

should be sufficient for most applications. Press [ENTER] to accept the default value.

7

Press [ENTER] twice to access the $d \cdot 5 \cdot 2$ (Display

`010000`
`d i5 2`

2) menu. Use [F1 RESET] and [F2 MAX] to enter a value and [F3 ENTER] when done.

8

Press [ENTER] twice to access the $Out \cdot 2$ (Display

`20.000`
`Out 2`

2) menu. Press [F3 ENTER] to accept the default value (20 mA).

Reset 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.
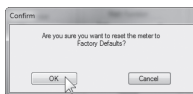
=== MeterView Pro Software ===

1

Reset Meter
Factory Defaults

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

2

Confirm
Are you sure you want to reset the meter to Factory Defaults?
OK   Cancel
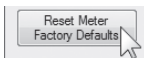
In the confirmation window that appears, click *OK*. The meter will reset to factory defaults.
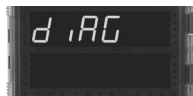
=== Meter Configuration Menus ===

1

Press and hold [MENU] for five seconds to enter

`FiLtEr`

the *Advanced Features Menu*.

2

Press [F2 MAX] until the $d \cdot R G$ (diagnostics) menu is displayed.

`d iAG`

3

Press and hold [F1 RESET] until the meter flashes

`rESEt`

$rESEt$ (reset). Immediately press [F3 ENTER] to reset the meter.

4

The meter will flash all of the LED segments

`ProcES`

and then display $ProcES$ (Process). The meter has been reset to factory defaults.