Helios PD2-6000 Large Display Meter

Quick Start Guide

MeterView Pro
USB Install

Thank you for your purchase of the Helios PD2-6000 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 PD2-6000 meter can be found in the instruction manual included on the CD or available at www.predig.com.

MENU – 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.

F1 RESET – Right/Reset Button – Change the selected digit while inputting numeric values in *Programming Mode*.

F2 MAX – Up/Max Button – Increment the selected digit while inputting numeric values in *Programming Mode*.

F3 ENTER – 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

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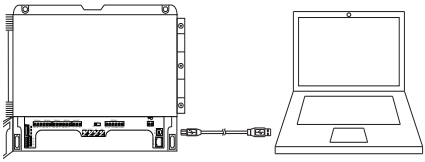
Installing MeterView® Pro

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.

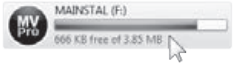
Note: Only one meter may be connected at a time. Attaching multiple meters will cause a conflict with the meter software.



2

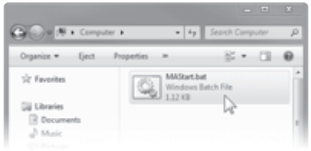
Once the driver is installed, an AutoPlay dialog should appear for the drive "MAINSTAL." Click "Open folder to view files."

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.

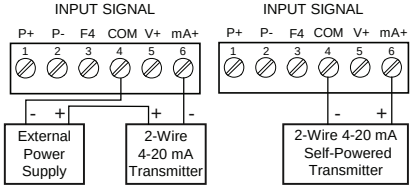
Note: The remainder of this guide will explain how to configure your meter using either the MeterView Pro software or the configuration menus in the meter itself. It is only necessary to perform one of these operations in order to configure the meter for a desired setting.

Basic Wiring for Helios Meter

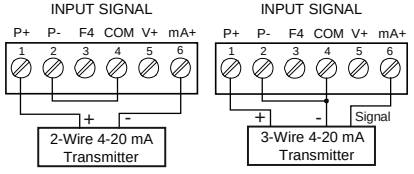
The connectors label, affixed to the inside of the front door panel, shows the location of all available connectors. Run wires through conduit holes at the base of the meter, connect to the provided screw terminals, and plug into the meter as indicated.

4-20 mA Input Wiring

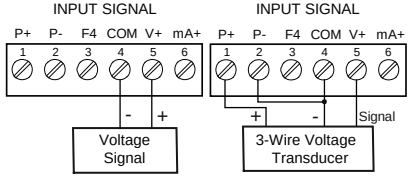
Wiring for a 4-20 mA input using either an external power supply or self powered transmitter.



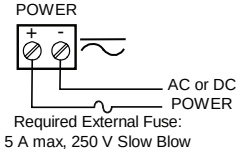
Wiring for a 4-20 mA input using internal power supply.



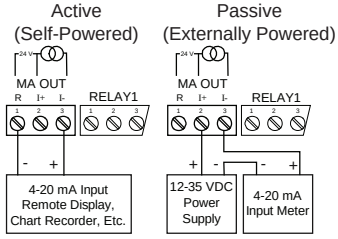
0-10 V Input Wiring



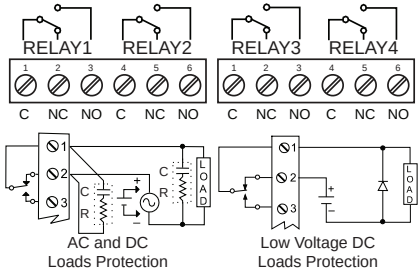
Power Connection



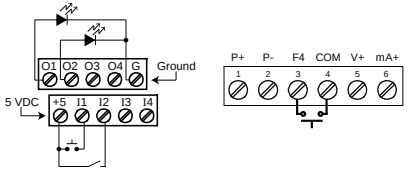
4-20 mA Output Wiring[1]



Relay Connections[2]



Digital Inputs and Outputs[3]



Consult the PD2-6000 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 (PD2-6000-XH7)
[2] Helios models with relay option (PD2-6000-XH7)
[3] If accessible pushbuttons are required once initial programming is complete, the use of digital inputs is recommended.

Program and Scale the Input

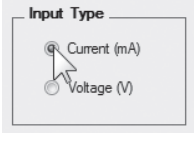
Program the Helios meter to accept a 4-20 mA or 0-10 V input and display a value associated with that range. When the meter is receiving a 4 mA or 0 V input, it will display the low end of the display range; when receiving a 20 mA or 10 V input, it will display the high end of the display range. The input values can be changed if needed, but the steps to do so have been omitted for this quick start guide.

For example: If the meter was used to display the level of a 100 ft tall tank, the transmitter should send a 4 mA signal when the tank is empty and a 20 mA signal when the tank is full. The meter would be programmed to interpret these inputs on a display range of 0-100, so that at 4 mA the meter will display 0.00 and at 20 mA the meter will display 100.00.

MeterView Pro Software

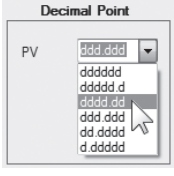
1

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



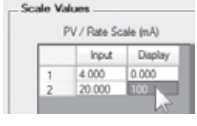
2

On the *Programming* tab, select the desired decimal point location.



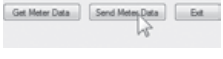
3

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



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 ENTER to access the SEtuP (Setup) menu.

2

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

3

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

4

Press F3 ENTER to access the d-SCAL (Dual Scale) menu, press F2 MAX to select YES or no, then press F3 ENTER.

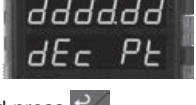
Note: Most applications only require one scale (select no).

5

Press F3 ENTER multiple times, until the dEc Pt (Decimal Point) menu is displayed and press F3 ENTER to access.

6

Press F1 RESET until the desired decimal point location is displayed and press F3 ENTER.



7

Press ENTER to access the ProG (Program) menu.

8

Press ENTER to access the SCALE (Scale) menu.

9

Press ENTER three times, until diS 1 (Low Display Value) is displayed. Press RESET to change which digit is selected, press MAX to increment the selected digit, and press ENTER when done.

10

Press ENTER three times, until diS 2 (High Display Value) is displayed. Using RESET and MAX, select your desired value. When done, press ENTER. Press MENU to return to *Run Mode*.

Program Relays for Automatic Reset

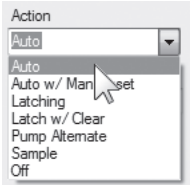
Program the Helios meter to turn the relays on at programmable set points and turn them off at reset points.

Note: 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

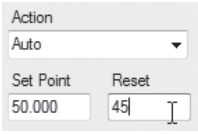
1

On the *Relays* tab, in the desired relay section, select "Auto" from the *Action* drop down list.



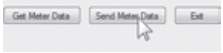
2

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



3

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



Note: All four relays (if installed) are programmed in this manner. It is not necessary to send your programmed settings to the meter after each relay is programmed, simply repeat steps 1 & 2 for each relay then send to the meter.

Meter Configuration Menus

1

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

2

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

3

Press F2 MAX until the appropriate relay number is displayed (rLY 1-4) and then press F3 ENTER.

4

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

5

Press F3 ENTER to accept Auto (Automatic Reset).

6

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

7

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

8

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

9

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*.

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 Custom Unit Tags

Program the Helios meter to display custom unit tags for the process value. The secondary display (line 2) shows this custom unit tag by default.

Note: The custom unit tag has no bearing on the meter's operation or the process value. Displaying a custom unit tag is simply for ease of reading.

MeterView Pro Software

1

On the *Setup* tab, in the *Display* section, enter your desired units designation in the provided field. This field is limited to six characters. The letters 'm' and 'w' count as two because they require two LEDs.

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 ENTER to access the SEtuP (Setup) menu.

2

Press F2 MAX until the un itS (Units) menu is displayed and then press F3 ENTER to access.

3

The meter will display the default unit tag (mA). Notice here that the letter 'm' uses two 7 segment LEDs. This is true of the letter 'w' as well.

4

Use F1 RESET to change which letter is selected and F2 MAX to increment to the next letter. Press F3 ENTER when done to accept the new unit tag.

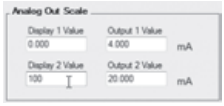
Program 4-20 mA Analog Output

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: The display values programmed for 4-20 analog output do not need to be the same as those programmed as input scale values, though they most commonly will be.

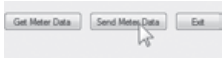
MeterView Pro Software

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 ENTER to access the SEtuP (Setup) menu.

2

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

3

Press F3 ENTER to access the di5 1 (Display 1) menu. This is the display value at which the low range of the output will be transmitted.

4

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

5

Press ENTER to access the Out 1 (Output 1) menu. This is the output signal which represents d.SP1.

6

The default value of 04.000 (4 mA) should be sufficient for most applications. Press ENTER to accept the default value.

7

Press ENTER to access the d.SP2 (Display 2) menu. This is the display value at which the high range of the output will be transmitted.

8

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

9

Press ENTER to access the Out 2 (Output 2) menu. This is the output signal which represents d.SP2.

10

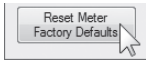
The default value of 20.000 (20 mA) should be sufficient for most applications. Press ENTER to accept the default value.

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



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

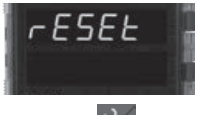
1

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

2

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

3



Press and hold RESET until the meter flashes rESEt (reset). Immediately press ENTER to reset the meter.

4

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