AMETEK®
PROCESS INSTRUMENTS

5100P Quick Reference Guide and User Interface Menu Map

NOTE

Refer to the 5100P TDLAS Analyzer User Manual *for detailed operation instructions.*

Installation and Start-Up

Environmental Temperature Range:	-20 °C to +50 °C
Sample Temperature Range:	-20 °C to +50 °C (non-condensing)
Standard Pressure Sample Panel:	1.03–17.2 BARG (15–250 PSIG)
Low Pressure Sample Panel (optional operation):	0.06–1.03 BARG (1–15 PSIG)
No Sample Panel:	Control Sample flow rate between 1–2 LPM. Sample Inlet pressure: 0.4–0.7 BARG (6–10 PSIG). Filter required to remove liquid and solid particulates from the Sample gas. Refer to 5100P Analyzer *User Manual*.

Connecting and Preparing the 5100P Analyzer in a Hazardous Location:

WARNING

Operation in Hazardous Locations
- Ensure all personnel performing work on the analyzer and Sample gas stream are familiar with all applicable safe handling procedures.
- Ensure the area is safe for the operation of this equipment.
- Ensure the Dust Caps for the USB and Battery Charger ports on the Rear Panel connections are installed.
- 5100P Analyzers that will be used in ATEX/IECEx Zone 2 areas must have an AMETEK-supplied Sample Conditioning Panel.

1. Before connecting the Sample gas line to the Sample Conditioning Panel, close the Sample Panel's Inlet Valve to isolate the Sample Panel from the Sample gas line. The Inlet Valve is *closed* when it is in the vertical position (5100P is also in the vertical position).

   Systems with the *Standard* (1.03–17.2 BARG/15–250 PSIG) Sample Panel only:
   Fully close the Regulator on the Sample Conditioning Panel. (Fully clockwise = Closed.)
2. Connect the Sample line to the 1/8-inch compression fitting on the Sample Panel's Inlet Valve. Ensure there are no leaks at this connection. Use Snoop® or another suitable leak detection agent to check the connections.
3. Open the main process Isolation Valve (by Customer) on the process pipe to start the flow of Sample gas to the Sample Panel.
4. Open the Drain Valve 1/8-turn by turning the valve 1/8-turn counter-clockwise from the fully Closed position.
5. Turn the Inlet Valve on the Sample Panel to the Open position.
6. Use the Regulator to adjust the Sample gas pressure to between 0.4–0.7 BARG (6–10 PSIG).
7. Adjust the Flow Meter Valve to set the Sample gas flow to between 1–2 LPM.
8. After the flow rate of the Sample gas has stabilized to 1–2 LPM through the 5100P, the analyzer is ready to measure the analyte concentration in the gas stream.

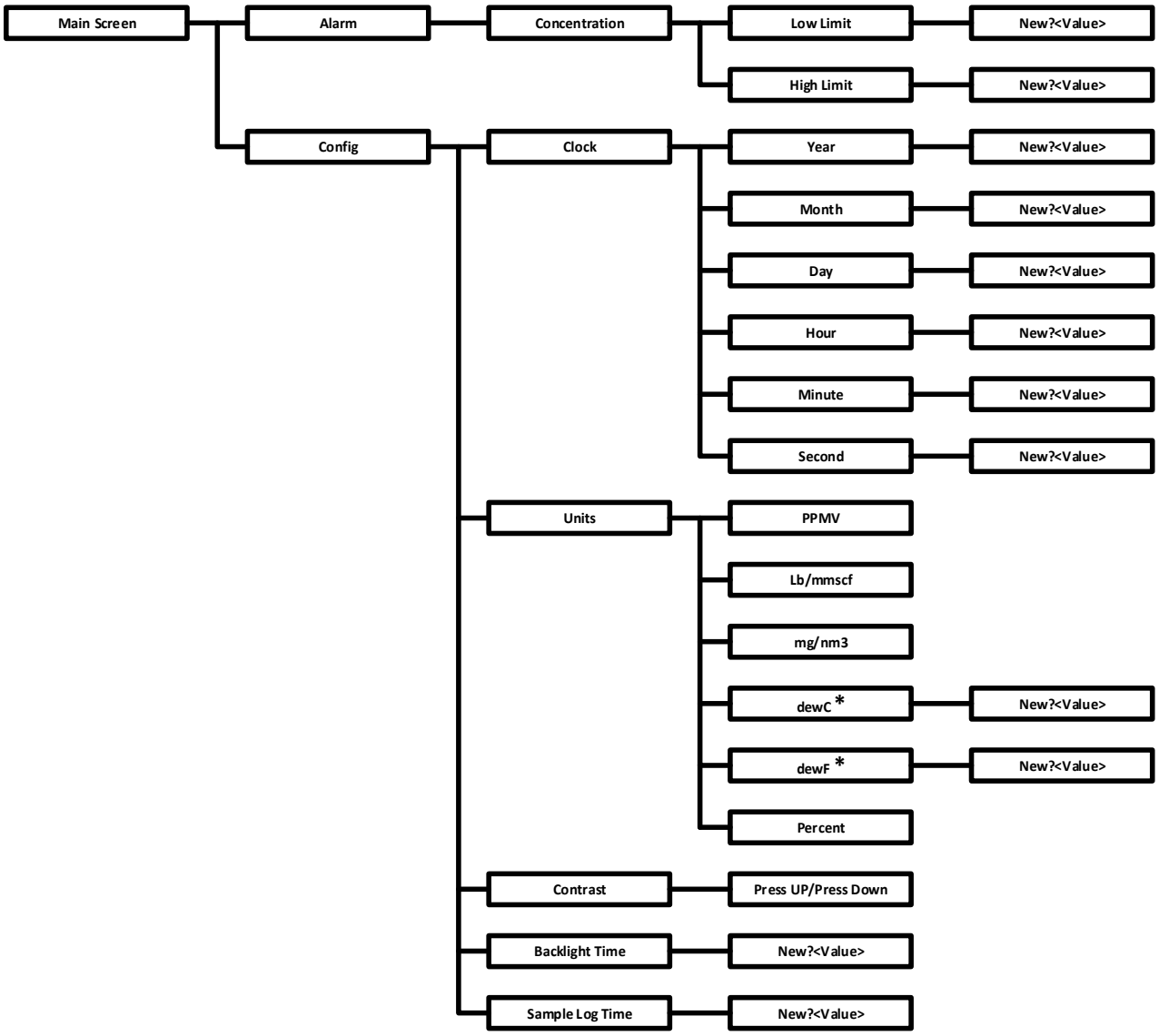
Connecting the 5100P Analyzer to a power source and/or a personal computer (PC) in a general purpose area:

WARNING

Prior to connecting the 5100P to either a power source (i.e., for charging the battery) or to a PC, ensure that the area is non-hazardous.

- To establish communication between the 5100P Analyzer and computer (using the 5100P Application Software):
  a. Remove the USB Port Dust Cap (large screw-on cap) from the USB Port on the Rear Panel of the 5100P.
  b. Connect the supplied USB cable to the USB Port on the 5100P. Connect the other end of the USB cable to the PC.
  c. Turn On the 5100P and allow it to warm up and stabilize (ready for normal operation) before starting the 5100P Application Software.
- To connect the Battery Charger to the 5100P Analyzer:
  a. Remove the Dust Cap (small screw-on cap) from the Battery Charger Port on the Rear Panel of the 5100P.
  b. Connect the output end of the Battery Charger cable to the Battery Charger Port on the 5100P.
  c. Connect the input end of the Battery Charger cable to a power outlet. (If required, use the supplied International Power Adaptor for your geographical region.)

5100P TDLAS Analyzer Menu Map – User Interface



* Dewpoint units are only available for water vapor applications.