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A trusted leader in measurement and calibration solutions

# **Autoclave Analyzer**

**Quick Start Guide** 

# First things first

# General purpose use only

**A DANGER** 

**Autoclave Analyzer** 

This device is not intended for hazardous locations.

Autoclave Analyzer is a diagnostic instrument for measuring temperature & pressure of Autoclave sterilization systems. The Autoclave Analyzer is not used to verify successful sterilization. The Autoclave Analyzer is not a medical device, and does not have an FDA product class.

The device is intended for indoor (climate controlled) use and storage.

### Receiving & unpacking

### Don't lose any components

- Take care not to lose any of the components.
- Optional: Autoclave accessories are shipped in a separate box from the device.
- Review the packing list to confirm that you received all components.

# Operating temperatures

For accurate measurements, the ambient temperature must be within 41 °F to 104 °F.

#### Storage temperatures

The recommended storage temperature is between: 32  $^{\circ}\text{F}$  to 140  $^{\circ}\text{F}$ 

#### Pressure sensor ranges

Minimum rated pressure: -14.5 psi gauge. Maximum rated pressure: 100 psi gauge.

#### Temperature sensor ranges

Functional range: -50 °C to 250 °C

#### Power requirement

Input: 12 V dc to 24 V dc @ 3 A maximum with
 4 Pin Mini Din port.

#### **Autoclave Analyzer & accessories**

#### Items included with the Autoclave

- The device has:
- 10.2 in. Touch-Panel computer.
- Four RTD temperature sensors.
- Two Compound Isolated 100 psi pressure sensor ports.
- One wireless keyboard and mouse.
- One soft-sided carrying bag.
- Power cord/AC adaptor

# Optional: Accessories kit

- Four 3.3 m 4 pin M12 M-F A coded cables.
- Four Class A RTD M12 A coded probe connectors.
- Two 3 m FVCO-FVCO 100 psi minimum rated steam pressure hoses.
- Four 1/8 in. MNPT-MVCO pressure fittings.

#### **Test setup**

- Connect the power cord to Autoclave Analyzer and plug in the AC power adapter.
- 2. Inspect the pressure hoses, temperature cables, and probes.
- Install the RTD probes into the autoclave under test.Connect the M12 cables between the RTD probes and the Autoclave Analyzer.
- Connect the hoses to the Autoclave Analyzer.
   An adapter fitting may be necessary. Use PFTE tape for NPT fittings.
- Connect the other ends of hoses to the appropriate fittings installed into the autoclave under test.
- 6. Turn on the device and wait for the **Setup** mode to appear.
- 7. Zero the pressure sensors. Zeroing removes the change in atmospheric pressure.
- Set required measurement units and sensor names.
- Confirm the Autoclave Analyzer is reading reasonable process values.
- 10. Set the test parameters you require: Operator, Location, Test name, Interval, Duration.
- 11. Setup cycle for autoclave under test.
- 12. Press **Record** button on the Autoclave Analyzer.
- 13. Start the autoclave cycle.

  Note: The test automatically stops after the specified duration or after you tap Stop. Review mode appears after the test stops.
- 14. Transfer data to the USB drive to analyze the data later.
- 15. Tap the **Return** button to view Live data in the six indicators.

#### Perform these checks before using

### Preventing injuries

- Check the specified pressure and temperature connection types and rating ranges for accessories.
- Only use accessories from other vendors that match the connection type or ratings of the device sensors.
- 3. Examine the power cord and adapter to make certain they are not damaged.
- 4. Place the device on a flat, stable surface before connecting cables or hoses.
- Check the steam pressure hoses to make certain they have no cracks, holes, defects, or unusual wear and tear.
- Look for cracks, residue, or other damage around the sensor ports. If you see any, don't use the device. Contact the appropriate personnel.
- Check all input, hose, and cable connections to make sure they are correctly and securely attached.
- 8. Check the computer screen to make sure it is not cracked or damaged.

#### Additional items to be aware of

- Don't let sharp or hard objects touch the screen.
- 2. Using the device above 6561 ft (2000 m) may display unreliable results.
- 3. Refer to the user manual for use and safety precautions.





#### **Repacking the Autoclave Analyzer**

### Shutting down properly

Don't unplug the power cord while the application is running.

- 1. Tap Power off in the Menu.
- After the computer turns off, unplug the power cord.

#### Hardware

- 1. Unplug the power cord.
- Disconnect the RTD cables from the sensor panel.
- 3. Disconnect the steam pressure hoses from the sensor panel.
- 4. Drain the water from the hoses.
- 5. Dry the hoses.

#### Cleaning

- Turn off the device and unplug the power cord before cleaning.
- 2. Clean the device once a month using a damp, lint-free cloth—water or isopropyl alcohol only.

#### Maintenance

Factory calibration once a year.

# **Troubleshooting tips**

#### Temperature measurements display ???

The RTDs are not properly connected.

- 1. Check the connections of the RTD cable on the panel and on the RTD.
- 2. If the connections are good, then swap the cable at the port.

Did the dashes follow the cable?

Yes - the port is ok.

No - the port is the problem not the cable.

If yes, then swap the cable at the probe.

Did the dashes follow the cable?

Yes - the cable is the problem.

No - the probe is the problem.

#### No measurements in the graph

Pressure and temperature measurements don't appear in the graph.

- 1. The Visibility controls may be turned off. Tap them to see if they turn on.
- 2. The networked sensors may have locked up.
  - 1. Turn the computer off.
  - 2. Wait 1 minute.
  - 3. Turn the computer on.

# Troubleshooting tips

#### The time is not correct

The time stamp that appears in the graph and in the data table isn't correct.

- 1. Set the computer's clock.
- 2. Tap the Date and Time on the taskbar on the bottom of the screen.

# The application didn't start automatically

- 1. Press and hold the power button to turn the device off.
- 2. Press the power button to turn the device on.

#### How to contact us

#### **Contact Sales**

If you have any issues, questions, or suggestions, please contact Sales at Western Enterprises using one of the following methods.

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