

LVSEDTAL DOP-107SV

LVSEDTAL 7-Inch HMI Touch Screen DOP-107SV User Manual

1. PRODUCT OVERVIEW

The LVSEDTAL DOP-107SV is a 7-inch Human Machine Interface (HMI) touch screen designed for industrial and commercial applications. It serves as a crucial interface between human operators and various PLCs or intelligent controllers, facilitating efficient system monitoring and control. This device is engineered for low power consumption, fast operation speed, and stable performance, ensuring reliable operation in diverse environments.

Key Features:

- **7-inch TFT LCD Display:** Provides clear visual feedback with 65,535 colors.
- **High Resolution:** Offers an 800 x 480 pixel display for detailed graphics.
- **Robust Touch Screen:** Features a four-wire resistance type touch screen with a durability of over 1,000,000 actuations.
- **Efficient Processor:** Equipped with an ARM Cortex-A8 processor (800 MHz) for rapid processing.
- **Ample Memory:** Includes 256 MB Flash ROM for program and data storage.
- **Comprehensive Compatibility:** Designed to be compatible with various PLCs and intelligent controllers via communication ports.
- **Easy Installation:** Engineered for straightforward setup, reducing installation time.



Figure 1.1: Front view of the LVSEDTAL DOP-107SV HMI Touch Screen, showcasing its display and sleek design.

2. SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your DOP-107SV HMI. Follow these steps carefully.

2.1 Unpacking and Inspection

- Carefully remove the HMI unit from its packaging.
- Inspect the unit for any signs of physical damage that may have occurred during transit. If damage is found, contact your supplier immediately.
- Verify that all components listed in the packing list are present.

2.2 Panel Mounting

The DOP-107SV is designed for panel mounting. Ensure the mounting surface is flat and stable.

1. Cut an opening in the panel according to the dimensions provided in the product specifications (refer to Figure 2.1).
2. Insert the HMI unit into the panel opening from the front.
3. Secure the HMI unit using the provided mounting clips or screws from the rear of the panel. Tighten evenly to ensure a snug fit without over-tightening.

• DOP-107BV

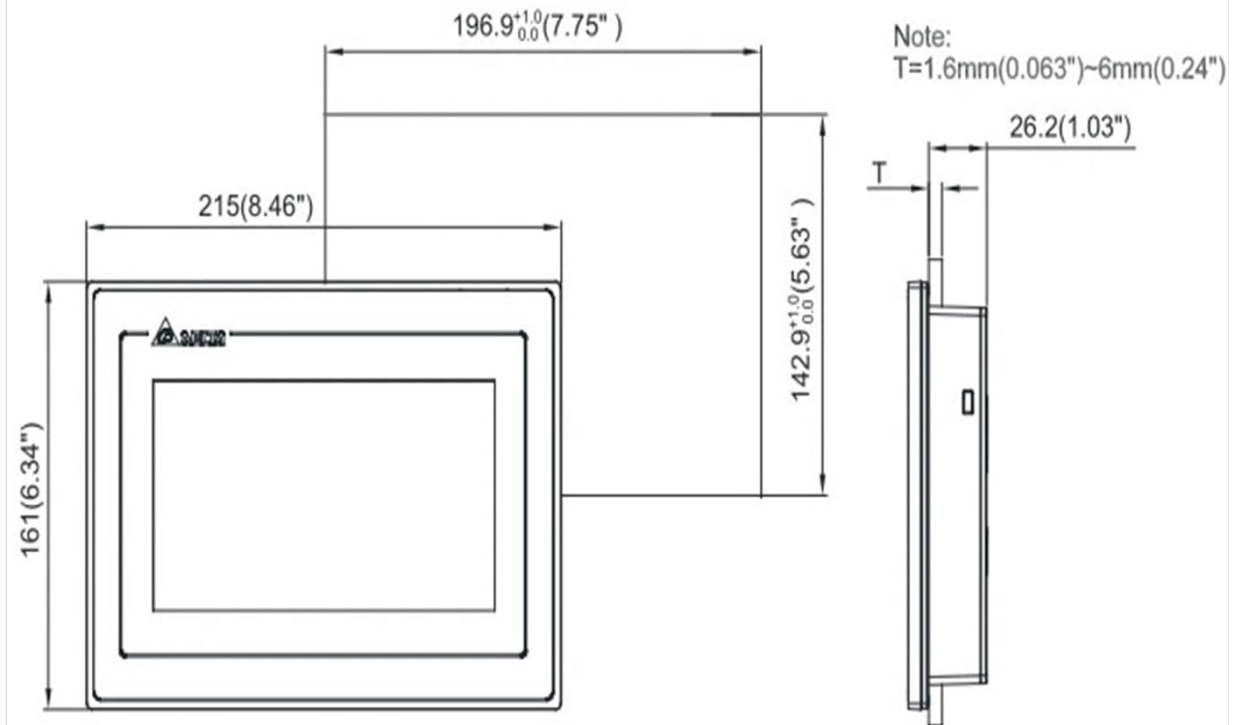


Figure 2.1: Dimensional drawing for panel cut-out and overall size. Note: Dimensions are in millimeters (inches).

2.3 Electrical Connections

Ensure all power is disconnected before making any electrical connections.

1. **Power Supply:** Connect a stable DC 24V power supply to the designated power input terminal on the rear of the HMI. Observe polarity carefully (refer to Figure 2.2).
2. **Communication Ports:** Connect your PLC or intelligent controller to the appropriate communication ports (e.g., COM2 for RS-232/RS-485, LAN for Ethernet, USB Host/Slave) as required by your application.
3. **USB Ports:** The USB Host port can be used for connecting external devices like USB flash drives for data transfer. The USB Slave port is typically used for connecting to a PC for program download.



Figure 2.2: Rear view of the HMI, illustrating the DC 24V power input, COM2 port, USB Host, USB Slave, and LAN port.

2.4 Initial Power-Up

- After all connections are secure, apply power to the HMI.
- The HMI will boot up and display the initial screen or the loaded application.
- If the screen remains blank or displays an error, refer to the Troubleshooting section.

3. OPERATING INSTRUCTIONS

The DOP-107SV HMI operates based on the application program loaded onto it. This section provides general guidance on interaction.

3.1 Touch Screen Interaction

- The HMI features a resistive touch screen. Use a finger or a non-sharp stylus to interact with on-screen elements.
- Press firmly but gently on the desired button or input field.
- Avoid using sharp objects that could damage the screen surface.

3.2 Application Navigation

- Navigation within the HMI application is typically done through on-screen buttons, menus, and input fields designed by the system integrator.
- Follow the specific instructions provided with your HMI application for detailed operational procedures.

3.3 Data Input and Display

- Data can be input via on-screen keypads or numerical input fields.
- Process values, status indicators, and alarms are displayed on the screen as configured in the application.

4. MAINTENANCE

Regular maintenance helps ensure the reliable and long-term operation of your DOP-107SV HMI.

4.1 Cleaning the Display

- Turn off the HMI before cleaning.
- Use a soft, lint-free cloth dampened with a mild, non-abrasive cleaner (e.g., screen cleaner or diluted isopropyl alcohol).
- Wipe the screen gently. Do not spray cleaner directly onto the screen.
- Avoid using harsh chemicals, abrasive pads, or solvents that could damage the screen surface.

4.2 Environmental Considerations

- Ensure the operating environment is within the specified temperature and humidity ranges.
- Keep the HMI away from excessive dust, moisture, direct sunlight, and strong electromagnetic interference.
- Periodically check ventilation openings (if any) for obstructions.

4.3 Firmware and Software Updates

- Periodically check the manufacturer's website for firmware updates or software patches.
- Follow the provided instructions carefully when performing updates to avoid damaging the device.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your DOP-107SV HMI.

5.1 No Power / Blank Screen

- **Check Power Connection:** Ensure the DC 24V power supply is correctly connected and providing the specified voltage. Verify polarity.
- **Power Supply Functionality:** Test the power supply with another device or use a multimeter to confirm it is outputting 24V DC.
- **Fuse Check:** If applicable, check for a blown fuse in the power circuit.

5.2 Touch Screen Unresponsive

- **Restart HMI:** Power cycle the HMI unit.
- **Calibration:** If the touch response is inaccurate, the touch screen may require recalibration. Refer to the HMI programming software manual for calibration procedures.
- **Physical Damage:** Inspect the screen for cracks or severe scratches that might affect touch functionality.

5.3 Communication Errors

- **Cable Connections:** Verify that all communication cables (e.g., RS-232, RS-485, Ethernet) are securely connected at both the HMI and the PLC/controller ends.
- **Communication Settings:** Ensure that the communication parameters (baud rate, data bits, parity, stop bits, IP address, etc.) configured in the HMI application match those of the connected PLC/controller.
- **PLC/Controller Status:** Confirm that the PLC or controller is powered on and operating correctly.

5.4 Application Not Loading

- **Program Download:** Ensure the HMI application program has been successfully downloaded to the device.
- **Memory Check:** Verify that there is sufficient Flash ROM available for the application.
- **Corrupted Program:** If the program is suspected to be corrupted, try re-downloading it.

6. TECHNICAL SPECIFICATIONS

The following table outlines the key technical specifications for the LVSEDTAL DOP-107SV HMI.

Feature	Specification
Model	DOP-107SV
Display Type	7-inch TFT LCD (65,535 colors)
Resolution (pixels)	800 x 480
Screen Size	Approximately 154.08 x 85.92 mm
Luminance (cd/m ²)	400 cd/m ² (typical)
CPU	ARM Cortex-A8 processor (800 MHz)
Flash ROM	256 MB
Touch Screen Type	Four-wire resistance type (> 1,000,000 actuations)
Power Input	DC 24V
Communication Ports	USB Host, USB Slave, COM2 (RS-232/RS-485), LAN (Ethernet)
Item Weight	1.1 pounds (approximately 0.5 kg)
Package Dimensions	1.18 x 0.79 x 0.39 inches (approximately 30 x 20 x 10 mm)
Assembly Required	No (for the unit itself)
Number of Pieces	1

7. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your

purchase or contact your authorized LVSEDTAL distributor. Keep your purchase receipt and product serial number readily available when seeking support.

For general inquiries or to find a local distributor, visit the official LVSEDTAL website or contact their customer service department.