

# FLUX PDS Datasheet



A reliable, safe, and flexible design for  
AD and ADAS applications

Designed & Manufactured by [Leo Drive](#)

## About FLUX PDS

Leo Drive's FLUX PDS (Power Distribution System) is a versatile and compact solution, expertly designed to power a wide range of sensors and systems, including industrial computers, lidars, radars, and cameras, and more. Key features of FLUX PDS include 12 independent automotive DC relay channels, an integrated cooling fan, and internal temperature sensors for precise monitoring. The onboard computer ensures efficient power sequencing and provides continuous real-time monitoring of each channel's electrical current, consumption, and overall health status. With its commonly used communication interface, FLUX PDS seamlessly supports AD (Autonomous Driving) and ADAS (Advanced Driver Assistance Systems) applications, including comprehensive automotive electronics testing.



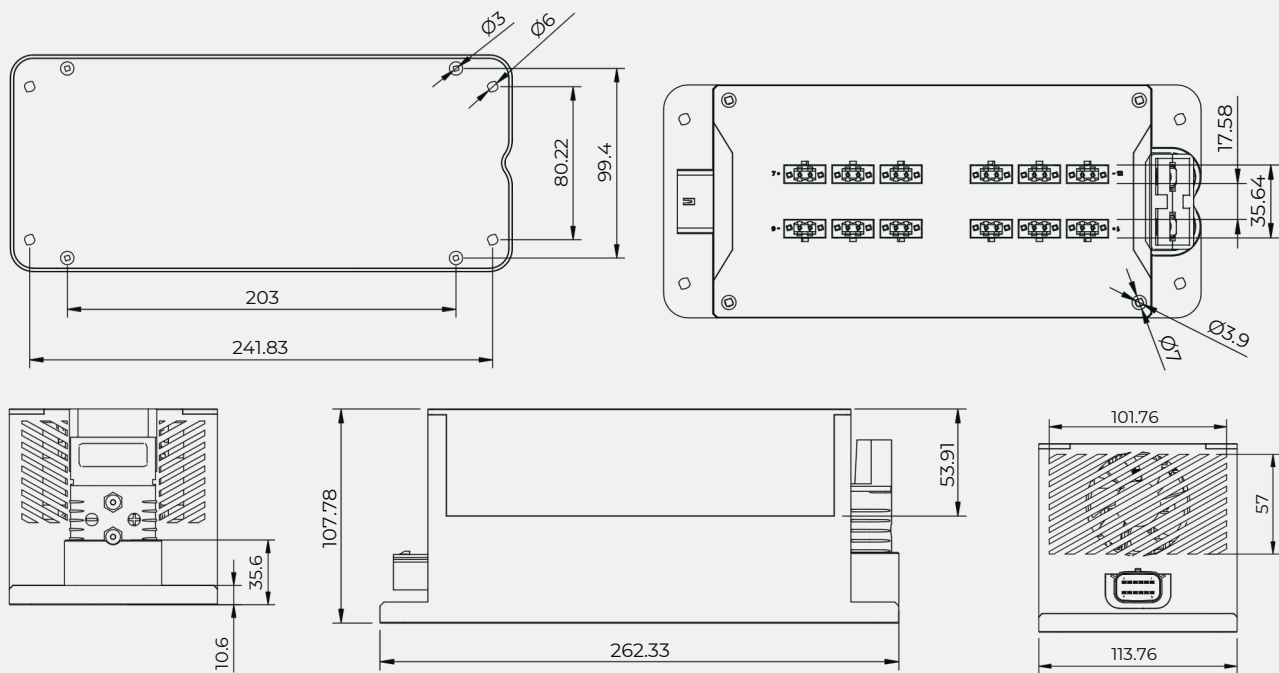
## What's in the Package?

- ✔️ **FLUX PDS** main unit
- ✔️ **Harness** with secure and organized connectors for easy integration and connection of electrical wires and the main unit
- ✔️ **Touch HMI (Human-Machine Interface) Display and Mounting Parts** for interactive control and monitoring, including all necessary mounting hardware for straightforward installation
- ✔️ **RS232 to USB Adapter** for system configuration and easy connection to ROS2, ensuring seamless communication with other devices

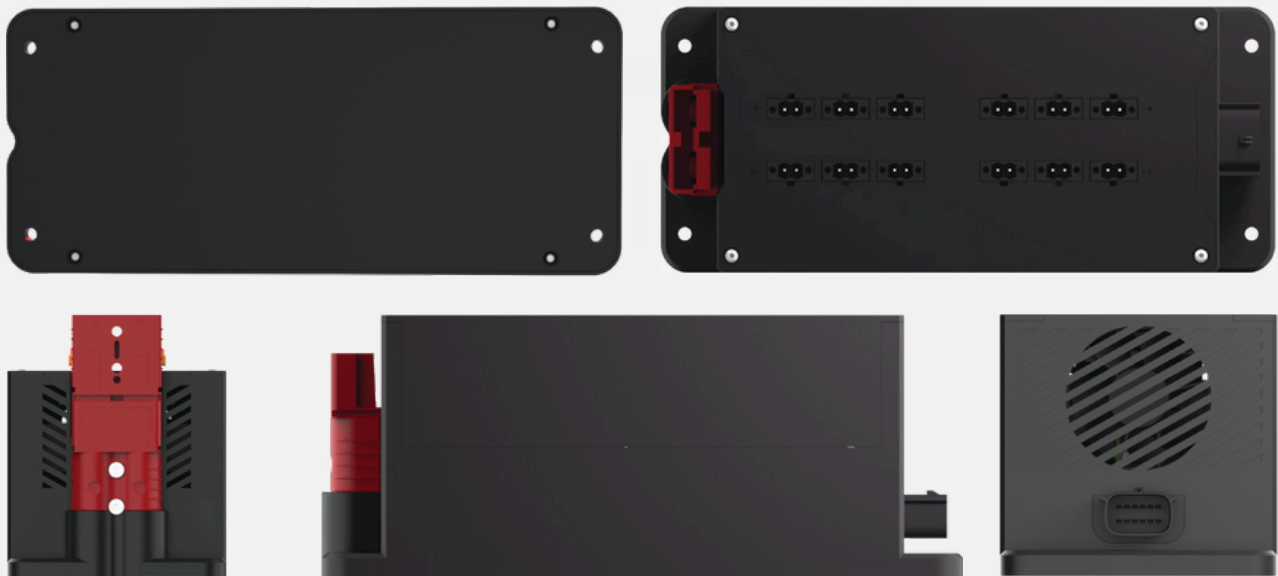
## Features

- ✔ **12 Independent DC Relay Channels:**  
Each channel supports up to 15A, with a total system capacity of 150A, providing robust power distribution across multiple devices.
- ✔ **CANBUS Communication:**  
Equipped with selectable baud rates (125kbps, 250kbps, 500kbps, and 1000bps), ensuring seamless integration with existing automotive systems.
- ✔ **Wide Operating Voltage Range:**  
Designed to operate efficiently within a voltage range of 9-30V, making it adaptable to various test vehicles.
- ✔ **Real-Time Current Monitoring:**  
Continuous monitoring of electrical current, ampere-hour, and health status across all channels, providing essential diagnostic information.
- ✔ **Configurable Channel Grouping:**  
Channels can be grouped to deliver higher current capabilities, enhancing system flexibility for demanding applications.
- ✔ **Active Air Cooling System:**  
An integrated cooling fan maintains optimal performance under high load conditions, preventing thermal issues.
- ✔ **ROS2 Driver Compatibility:**  
Fully compatible with ROS2, ideal for AD (Autonomous Driving) and ADAS (Advanced Driver Assistance Systems) applications.
- ✔ **Changeable Relays:**  
Utilizes high-quality relays designed to withstand demanding automotive environments, ensuring long-term reliability.
- ✔ **Capacitive Touch HMI Display:**  
Features a 5-inch capacitive touch screen for intuitive operation and real-time monitoring of system parameters.
- ✔ **Windows-Based User Interface:**  
The user interface is built on Windows platform, offering functionalities like graphing, script creation, channel naming, and data logging.
- ✔ **Comprehensive Diagnostics and Safety Protections:**  
Incorporates overvoltage, undervoltage, overcurrent, short circuit, and over-temperature protections to safeguard system integrity.

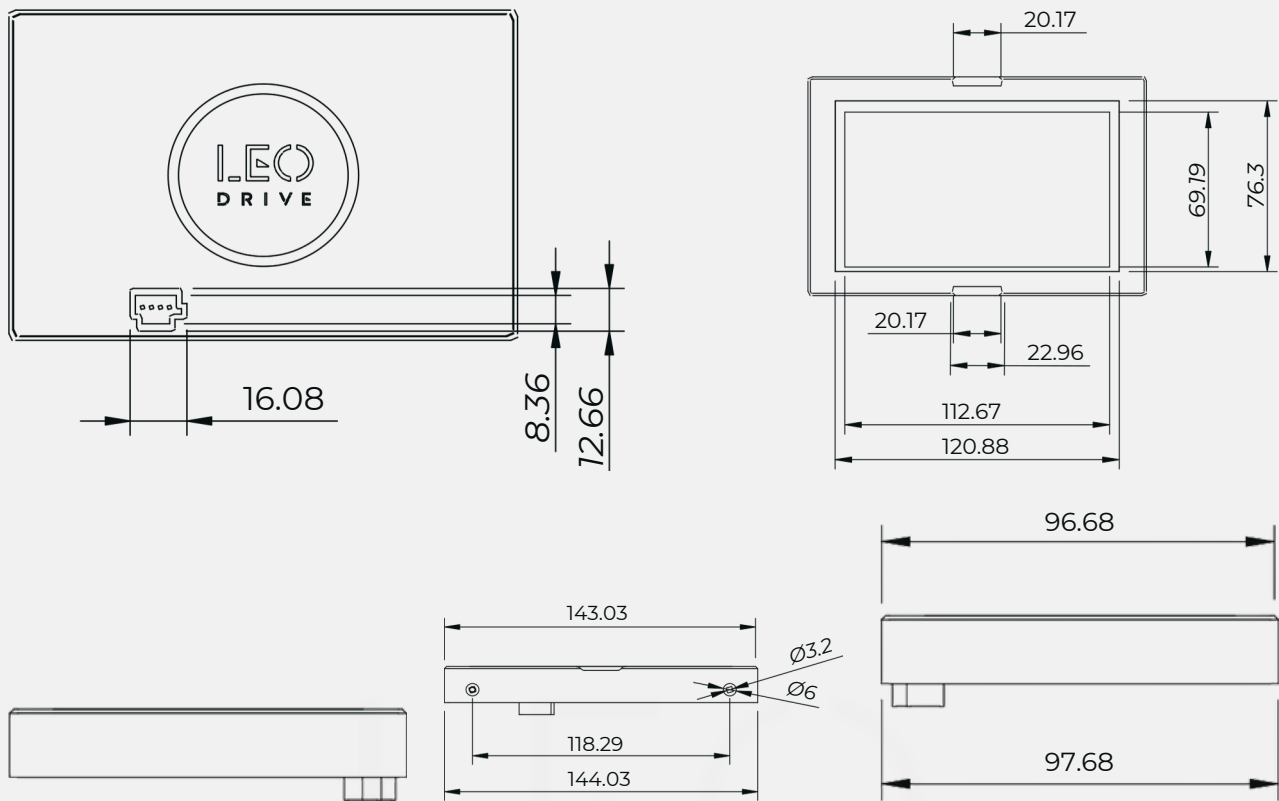
## Mechanical Drawing - Main Unit - Box



## Mechanical Drawing - Main Unit - Visual



## Mechanical Drawing - Touch HMI Display - Box



## Mechanical Drawing - Touch HMI Display - Visual





## About Leo Drive

We are dedicated to transforming the transportation sector by leveraging our expertise in developing state-of-the-art autonomous vehicles. Since our establishment in 2015, we have followed a co-creation and design-win approach to customize our solutions according to the unique needs of projects.

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## Meet GATE VCU

Check out Leo Drive's Vehicle Control Unit solution



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