Trilocate

Application: Autonomous Charging of Electrical Vehicles

The grivix Autonomous Charging Communication and Positioning module is available for vehicles and robots. It measures the distance between the robot and the vehicle and may guide the vehicle to the right place to be charged (in range of the robot's arm). It assures the communication between the vehicle and the robot until it is fully plugged in. It supports the latest standards according to IEC TS 61851-28 and can communicate with various heavy-duty vehicles, incl. busses, and trucks according to J1939 (CAN-Bus). Ideally at least two units are installed on the charging station side and at least one on the vehicle side.

Benefits

- Enables your vehicle to charge autonomously.
- Gives precise guidance to the charging station with an accuracy of 15 cm.
- Communication between charging system and car according to IEC TS 61851-28 CD.
- Convenience and safety for the driver.
- Saves costs on charging infrastructure.
- Ready to be used for human-driven electric vehicles now and autonomous-driving vehicles in the future.

Product Definition

Product Type	Communication and Positioning Module
Connectivity	Ultra-Wide Band (UWB / Fira) Bluetooth LE CAN-Bus (J1939 or native) LIN-Bus
Standards	IEC TS 61851-27 IEC TS 61851-28 SAE J1939
Ingress Protection	None (Enclosure with IP 65 rating available)
Conformance	CE compliant

Positioning / Transceiver

UWB Communication Channels	UWB Channel Number 5 9	Centre Frequency 6'489,6 MHz 7'987,2 MHz
Communication Protocols	UWB, Bluetooth	
Bandwidth	499,2 MHz	
Accuracy	15 cm	

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Electrical Data

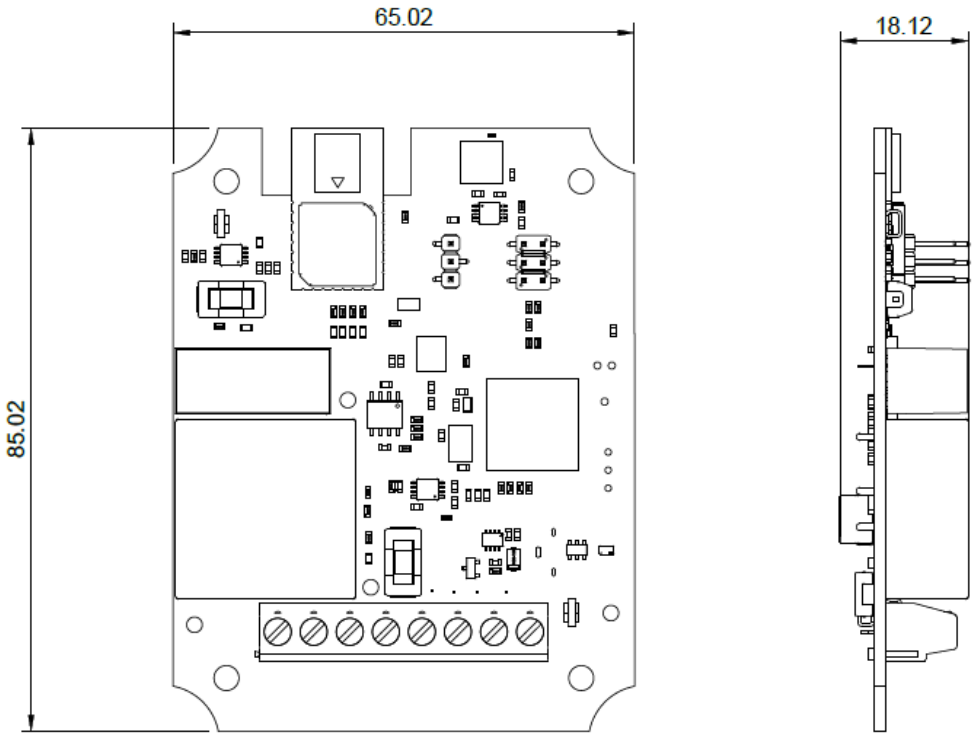
Supply voltage	12 or 24 V/DC	
Power consumption	Standby Transmission Actuator	1.2 W 1.2 W 8 W

Mechanical Data

Size PCB	65 x 85 x 18 mm
Size Housing	102 x 104 x 37 mm

Environmental Data

Operating temperature range	-25 °C to +50 °C
RoHS compliant	



Note

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical specifications and/or the fitness for any particular purpose. The facts and figures contained herein are carefully compiled to the best of our knowledge, but they are intended for general information purposes only.

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