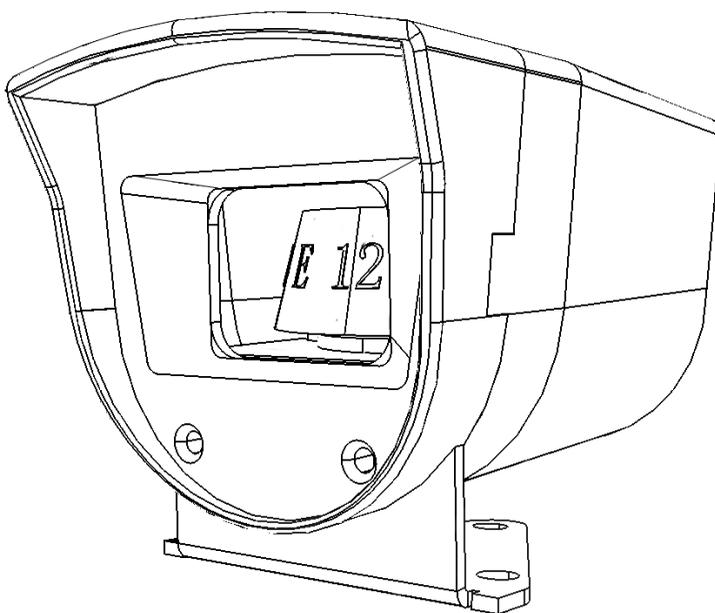


# SHCP01

# User Manual



Version 2.0  
JAN 12<sup>nd</sup> 2022  
SIMiONIC



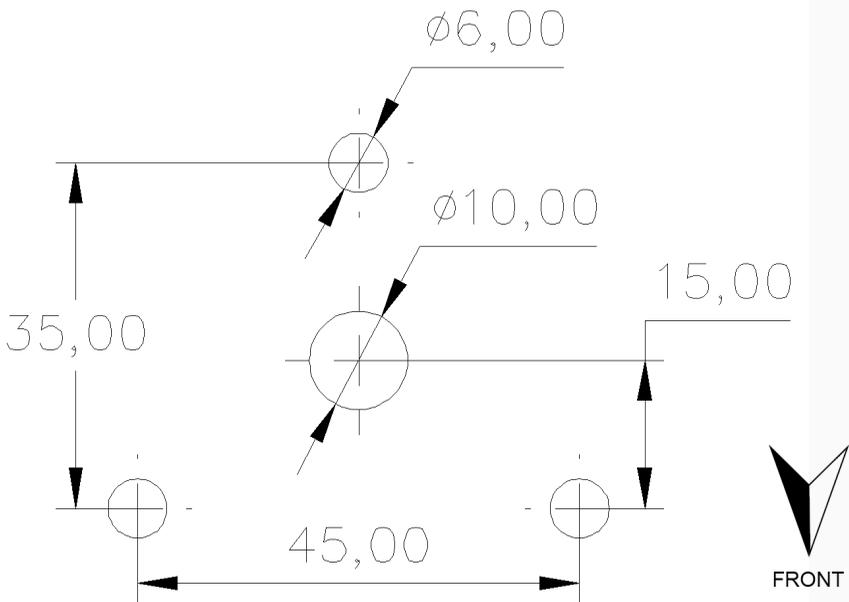
# Overview

Thanks for choosing products from SIMiONIC. We strive to provide the best quality and realistic hardware for the use of building flight simulators.

This manual includes the spec and usage of the simulated compass produced by SIMiONIC which is supposed to be used on flight simulators. The component is driven by a stepper motor with a controllable light.

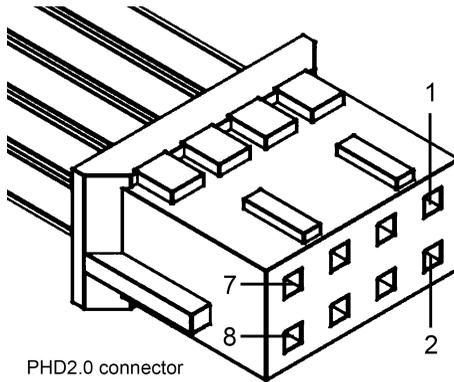
# Cutout Diagram

Unit: mm



## Connector pinout

This simulated compass is driven by a stepper motor which is driven by TMC2225, a stepper motor driver IC. The stepper motor runs on 5V power while the IC's TTL is 3.3V. Please refer to the pinout diagram for the pin definition.



Pin number	Name	Purpose
1	GND	Ground
2	Step	Pin 'step' on TMC2225. The compass plate rotates 0.225 degree per pulse.
3	LED	Connect to GND light up, suspend to turn it off.
4	Dir	Pin 'dir' on TMC2225. High to rotate clockwise. Low to rotate counter clockwise.
5	Hall	Output low when the compass plate rotates to a certain point, otherwise out high. This is for calibration process when needed.
6	3.3V	For TMC2225
7	GND	Ground
8	5V	For the stepper motor

## Limited Warranty

- 1. The product is covered by a 1 year limited warranty from the date of purchase, against any defects in materials or workmanship.*
- 2. This limited warranty does not cover any damage, deterioration or malfunction resulting from any improper use.*
- 3. We will repair the product using either new or refurbished replacement parts.*
- 4. To obtain warranty service, you must first contact us to determine the problem and the most appropriate solution for you.*
- 5. Shipping costs for products returned for warranty are never included in the warranty. Shipping towards us as well as shipping from us towards the client shall be paid by the client. We may require pre-payment of return shipping costs in advanced by bank prepayment or other type of payment.*

### **Company address:**

*1024 2<sup>nd</sup> South Building, Software Park  
No.18 Hi-Tech West Road  
Hi-Tech Industry District, Tianjin  
China*

**Support e-mail:** *support@simionic.net*