

1. Brief Introduction

The product is made of two equal half-circle SMR (Semiconductor Magneto Resistance) units or Hall unites and one half-circle permanent magnet at a distance above the units, which are fixed on the shaft of the sensor. The output of the sensor varies with the different angle positions when the magnet on the shaft of the sensor rotates contactlessly around the units.

The characteristics of the sensor are: no contact-point, noiseless, non-abrasion, low torque, high resolution and high sensitivity, good response to mechanical reciprocation. It can be used widely in the area of automatic measure and control systems.

2. Basic Features

| Type | Linear | Rotation Angle | Output Character | |
|---|--------------------------------|--------------------------------------|---|---|
| WYH-1 WYH-3 WYH2-1 WYH2-3 WYH-1V9.5 | 0~90° | 360° (sine) | See Output Curve Voltage Output | |
| Type | Linear Range | Output | Angle Measurement | Output Character |
| WYT-AT-1 WYT-AT-2B WYT-AT-3 WYT-AT-5 WYT-AT-6 WYT-AT-7 | 0~90°、±45° 0~180° 0~360° | 1~5V, 0~5V 4~20mA and so on | Select Angle Part in the Linear Range. | Standard Electric Current Signal or Voltage Signal. |
| WYT250T | 0~250° 0~250° | | | |
| Output increase with clockwise rotation | | | | |

3. Ordering Information

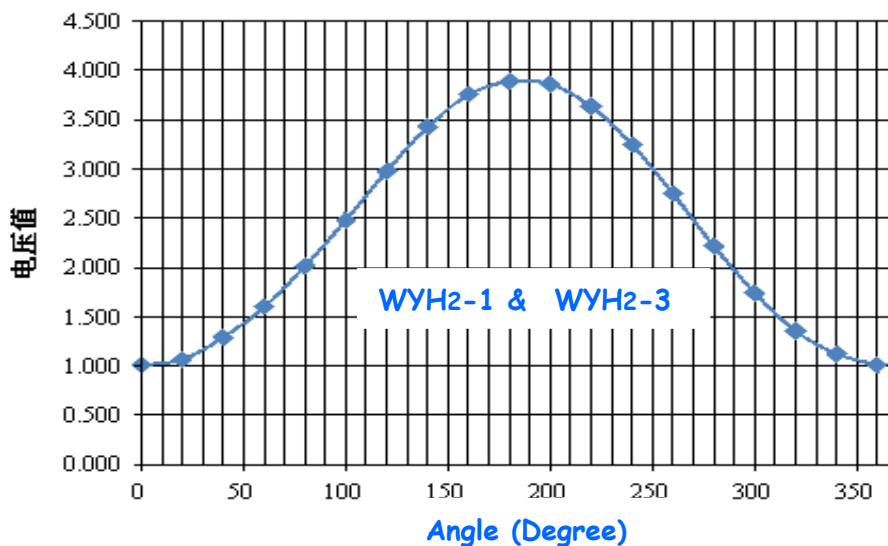
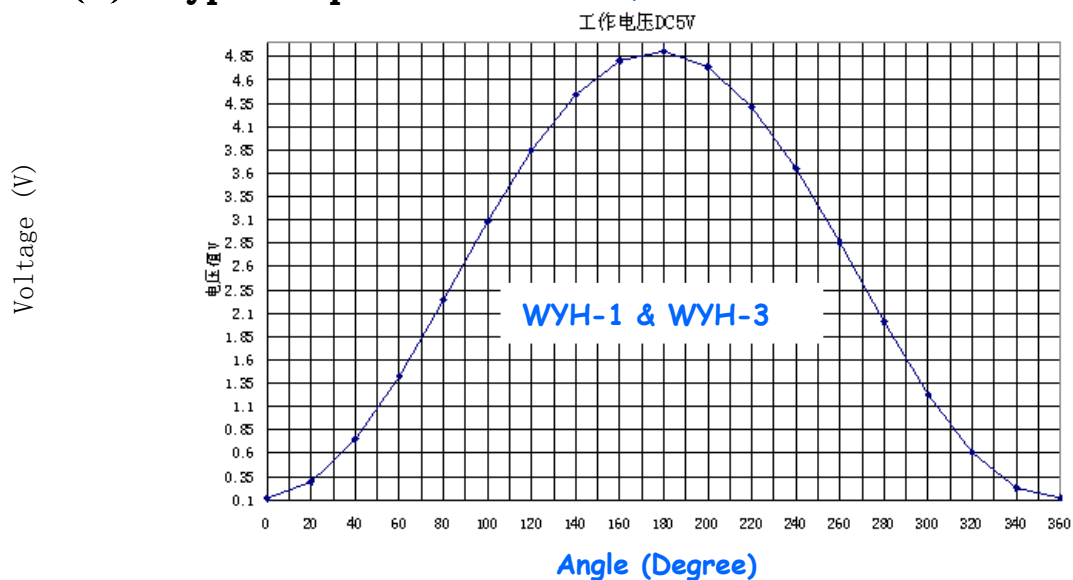
1) Angle Sensor

Type: WYT-1, WYT-3, WYH-1, WYH-3, WYH2-1, WYH2-3,

(1) Basic Performance

| Type Parameter | WYT-1 WYT-3 | WYH-1 WYH-3 | WYH2-1 WYH2-3 |
|-----------------------|---|--|--|
| Linear Range | $\pm 45^\circ$ | $\pm 45^\circ$ | $\pm 45^\circ$ |
| Sensitivity | $> 10\text{mV}/1^\circ$ ($V_{in} = 5\text{V}$) | $> 40\text{mV}/1^\circ$ ($V_{in} = 5\text{V}$) | $> 30\text{mV}/1^\circ$ ($V_{in} = 5\text{V}$) |
| Power Supply | DC 2~12V | DC 5V DC 3.8V~8V | DC 2 ~ 12V |
| Operation Temperature | $-20^\circ\text{C} \sim +75^\circ\text{C}$ | $-30^\circ\text{C} \sim +85^\circ\text{C}$ | $-20^\circ\text{C} \sim +75^\circ\text{C}$ |
| Storage | $-30^\circ\text{C} \sim +85^\circ\text{C}$ | $-40^\circ\text{C} \sim +85^\circ\text{C}$ | $-25^\circ\text{C} \sim +75^\circ\text{C}$ |
| Resolution | Continuous | Continuous | Continuous |
| Rotation Way | Fixed bearing, continuously rotating in 360° . | | |

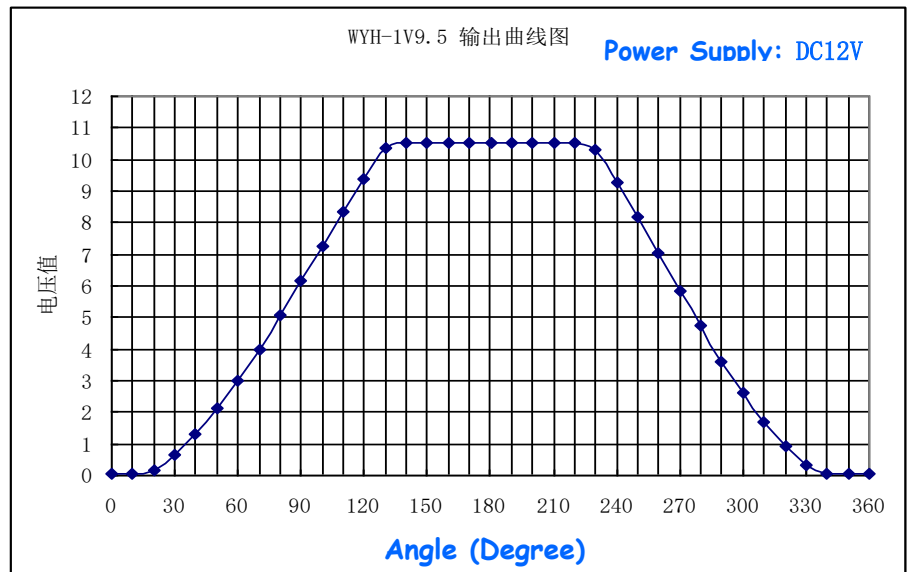
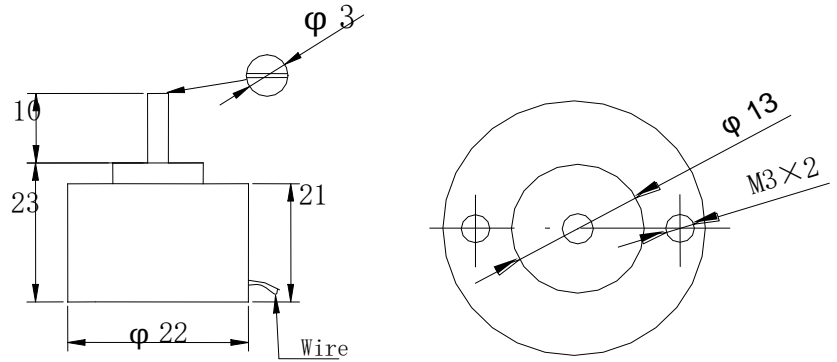
(2) Typical Output Curve WYH-1; WYH2-1



The relation between the output voltage and the angle

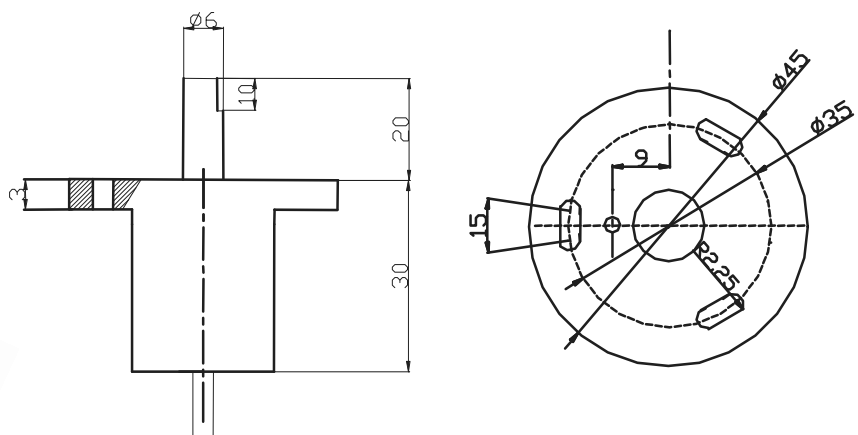
(3) Size

a) WYH-1 WYH2-1 WYH-1V9.5 Case Material: Aluminum Alloy



b) WYH-3 WYH2-3

Case Material: Stainless steel



2) Angle Displacement Sensor

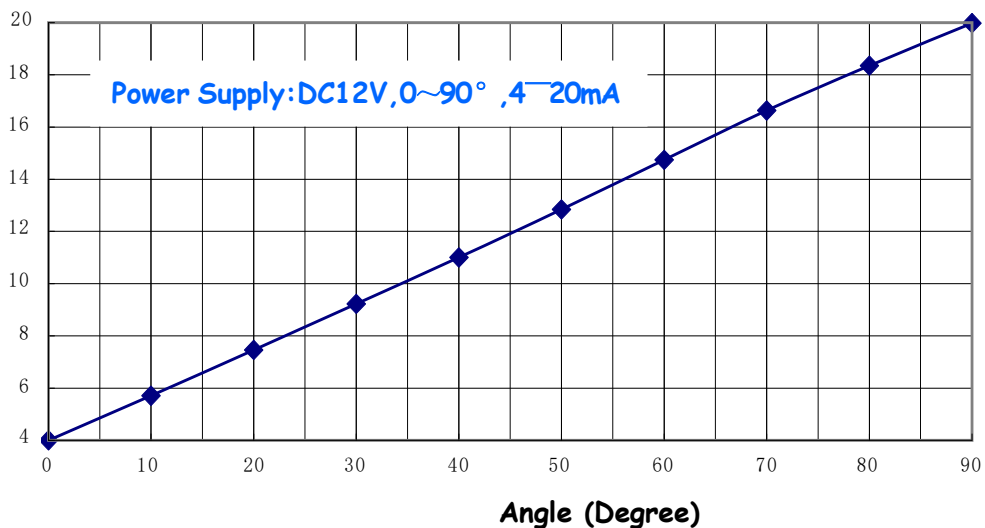
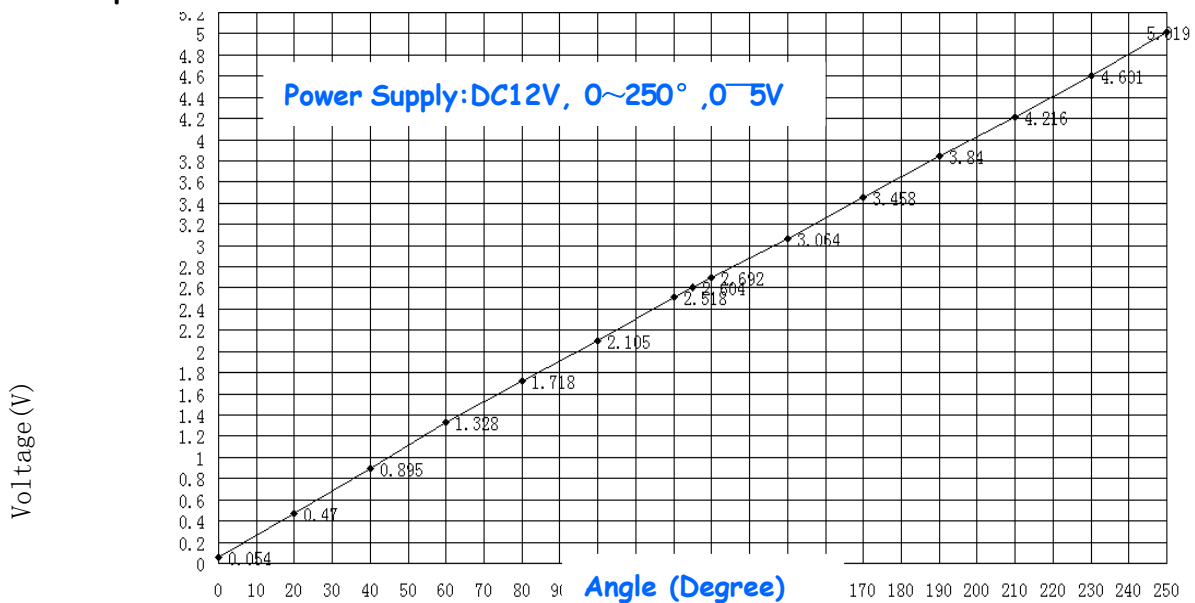
Type: WYT-AT-1, WYT-AT-2B, WYT-AT-3..., WYT-3I3D, WYT-AT-5 WYT-AT-6
WYT-AT-7 AND WYT-GT-3 , WYT250T ,etc.

Basic Performance

| Type Parameter | WYT-AT-1 | WYT-AT-2B | WYT-AT-3 | WYT250T |
|---------------------|----------------------------|------------|------------|------------|
| Linear Range | 0~90°;0~360° | 0~360° | 0~90° | 0~250° |
| Power Supply | DC12~24V | DC12~24V | DC8~24V | DC12~24V |
| Output Signal | 4~20mA,0~5V,1~5V and so on | | | |
| Resolution | Continuous | Continuous | Continuous | Continuous |
| Accuracy | ± 0.1% ± 0.5%FS | 0.1° | ± 0.1% FS | ± 0.5%FS |
| Working Temperature | -25℃~+75℃ | -25℃~+75℃ | -25℃~+75℃ | -25℃~+75℃ |
| IP | IP65 | IP64 | IP64 | IP64 |

Special service offered based on customers' requests to design, research and develop products

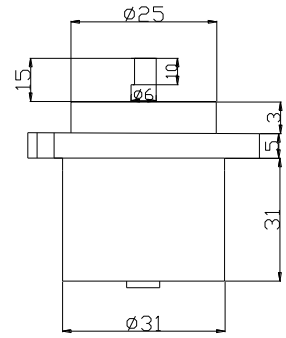
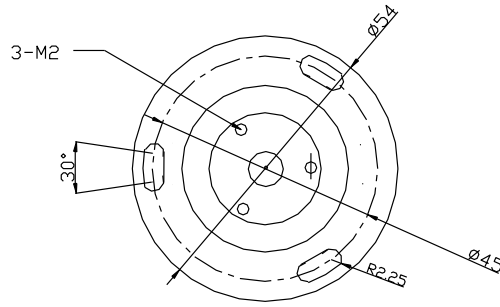
Output Curve



(1) Size ,

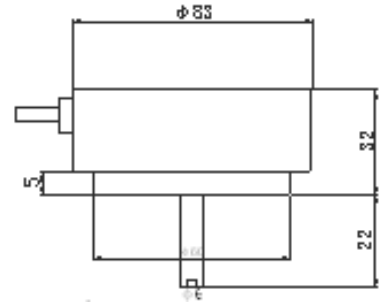
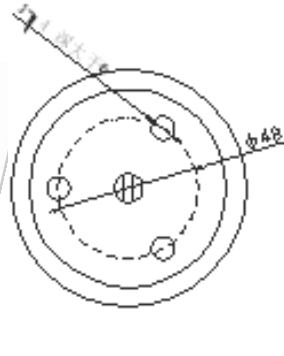
a) WYT-AT-1

Case Material: Stainless steel



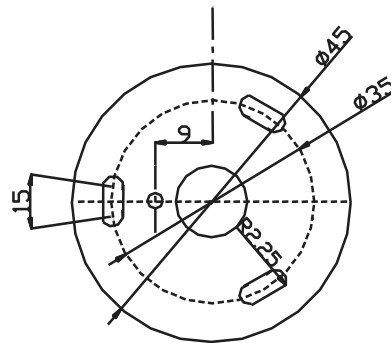
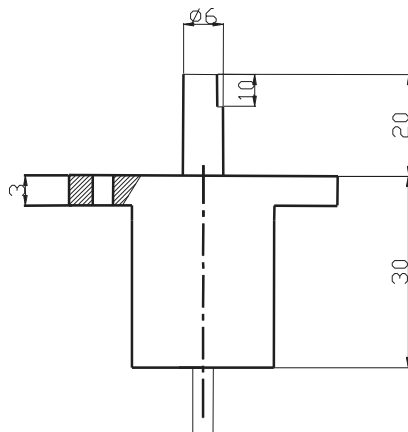
b) WYT - AT - 2B

Case Material: Aluminum Alloy



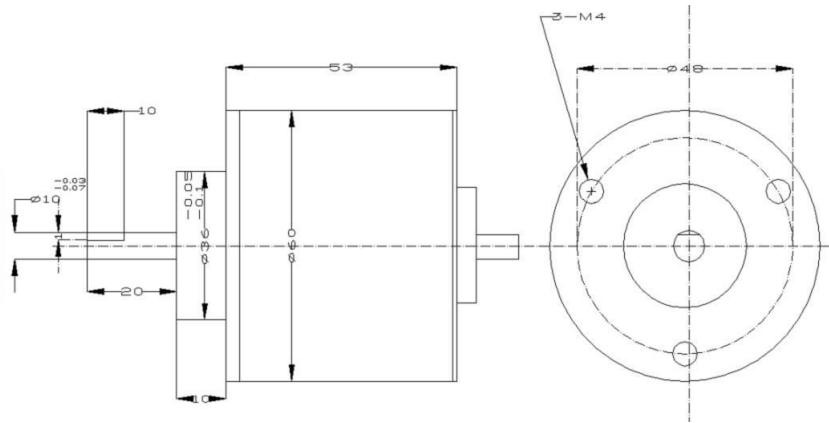
c) WYT-AT-3, WYT-AT-3V0, WYT-AT-3VT, WYT-3I3D

Stainless steel



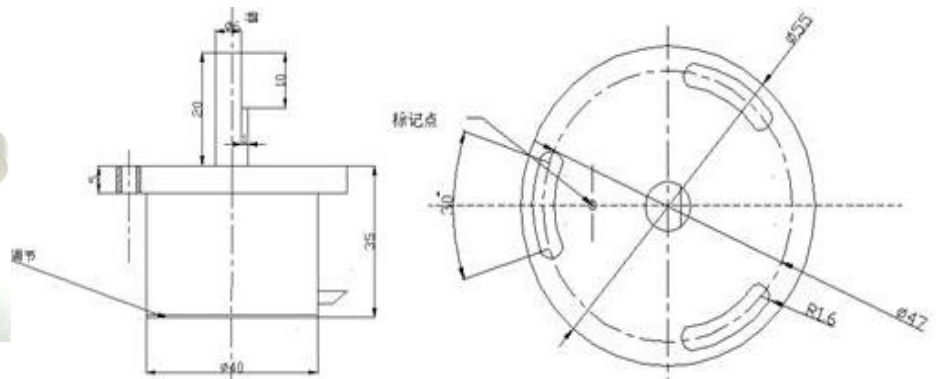
d) WYT-AT-5 WYT-AT-250

Case Material: Stainless steel



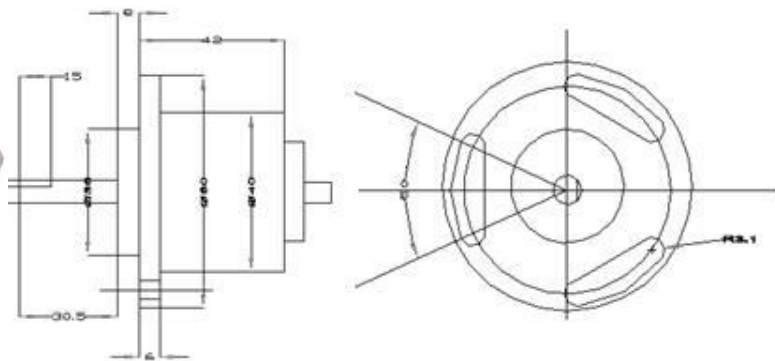
e) WYT-AT-6

Case Material: Stainless steel



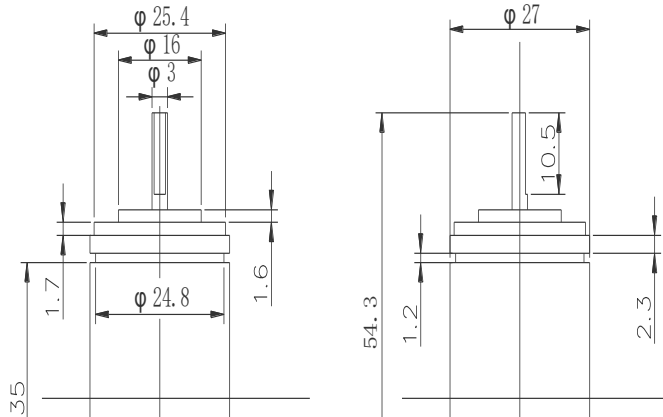
f) WYT-AT-7

Case Material: Stainless steel



g) WYT250T

Case Material: Aluminum Alloy



h) WYT-GT-3

Aluminum Alloy



4. Attention to Installation

- 1) To keep the sensor bearing and the transmission bearing concentric with each other, install them by connecting the axle sleeves.
- 2) It cannot withstand twisting force on axle direction or radial direction, otherwise it would be damaged and/or errors might occur.
- 3) Please check the direction and marks in detail on the case for the center position of installation.
- 4) Please refer to the illustration of the sensor for other parameters.



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