Attitude Heading Reference System：AH100

With the influx of urban population, the former water supply and drainage system has been far beyond the load. Frequent leakage stoppages, brought great trouble to people's life. How to check and repair the water supply and drainage pipeline in time without closing or destroying the road already been a problem in front of the government departments!

Recently, a new pipeline robot was born in GuangQiang robot company, which successfully solved these problems. The new process of physical examination and repairing by pipeline robot can greatly improve the efficiency and the cost is only half as much as before

product picture

The posture-control solution of pipeline robot introduced by BEWIS sensing and partner, applies the navigation posture reference system sensor to detect the posture of robot walking in the pipeline in real time, and completely solves the problem of breaking the axle and turning over at 90 degrees. Two driving motors, left and right, have step less speed regulation, and the left and right motors can be point to move control function. Pipeline robot about 1 m long, 0.4 meters high, in the front of the robot, installed pinpoint camera device, it can perform 360 ° rotation, thus to leave no dead Angle tunnel detection. The wireless digital positioning system enables the robot to accurately locate the location of pipeline diseases without entering the tunnel just by remote operation .

feature:

- azimuth accuracy : 1°
- roll、pitch accuracy : 0.1°
- applicable pipe diameter is 150mm-160mm
- waterproof design to ensure normal operation in harsh environment
- anti-vibration shock and anti-electromagnetic interference
- with a robotic arm that can pick up small items left behind
- can carry a vent pipe of about 100 meters in length
- with a camera capable of observing, recording, photographing and so on at 360 degrees without any dead angle
- pipe diameter above 250mm: need to turn the 90 degree curve of 1.5D
- pipe diameter below 250mm: straight-ahead

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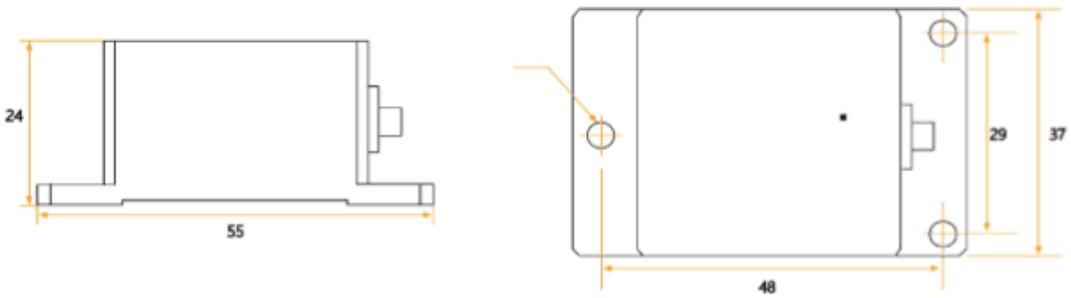
Attitude Heading Reference System：technical indicators

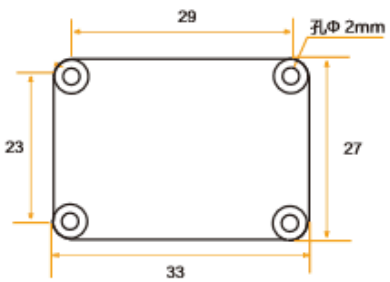
Performance Specifications

Attitude parameter	Pitch Accuracy	2° (RMS, dynamic) 0.5° (RMS, Static)
	Roll accuracy	2° (RMS, dynamic) 0.5° (RMS, Static)
	Resolution	0.01°
	Slant Range	Pitch ± 90°, Roll ± 360°
Heading parameter	Heading Accuracy	2° (Pitch<40°)
		2.5° (Pitch<60°)
		3° (Pitch<80°)
	Resolution	0.01°
Physical characteristics	Size	L55 x W37 x H24 (mm)
	Weight	60g
	Output form	RS232/RS485/TTL
Interface characteristics	Start Delay	<50 ms
	Maximum Output Rate	50Hz
	Serial Communication Rate	2400-115200 Baud rate
	Digital Output Format	Binary high performance protocol
Environment	Vibration Resistance	2000g
	Operating temperature	-40~85℃
	Storage temperature	-55~100℃
power supply	Voltage	5V DC
	Working current	40mA

product size：L55*W37*H24 (mm)



bare plate product size：L33*W27*H6 (mm) Length and width may have ±1mm error, please prevail in kind



Attitude Heading Reference System：successful cases

Ningbo Guangqiang Robot technology co., LTD., headquartered in ningbo, zhejiang province, China, is a private technology company that develops, produces and sells CNC numerical control system, industrial robot, CCTV pipeline robot, CCTV pipeline inspection vehicle and automatic assembly production line. Founded in ningbo economic and technological development zone by overseas returnees, it is one of the few domestic robot equipment suppliers with independent r&d and manufacturing capability and an automatic assembly line solution provider.

Founded by overseas students, Guangqiang Robot is composed of 32 percent of its employees with a master's degree or above, 31 years old on average, and 45 percent of its employees are researchers. It has thousands of square meters of research and development, pilot plant, processing and assembly plant. With a strong international background and a good long-term cooperative relationship with overseas enterprises, it participates in machinery and automation international exhibitions held in Japan, Germany and the United States every year. The company is committed to developing robot and automation related systems with independent intellectual property rights on the basis of absorbing the latest and most cutting-edge products in the world.

CCTV pipeline inspection robot

DG - 300 CCTV equipment

Pipeline robot with a robotic arm

CCTV TV detection system for pipeline