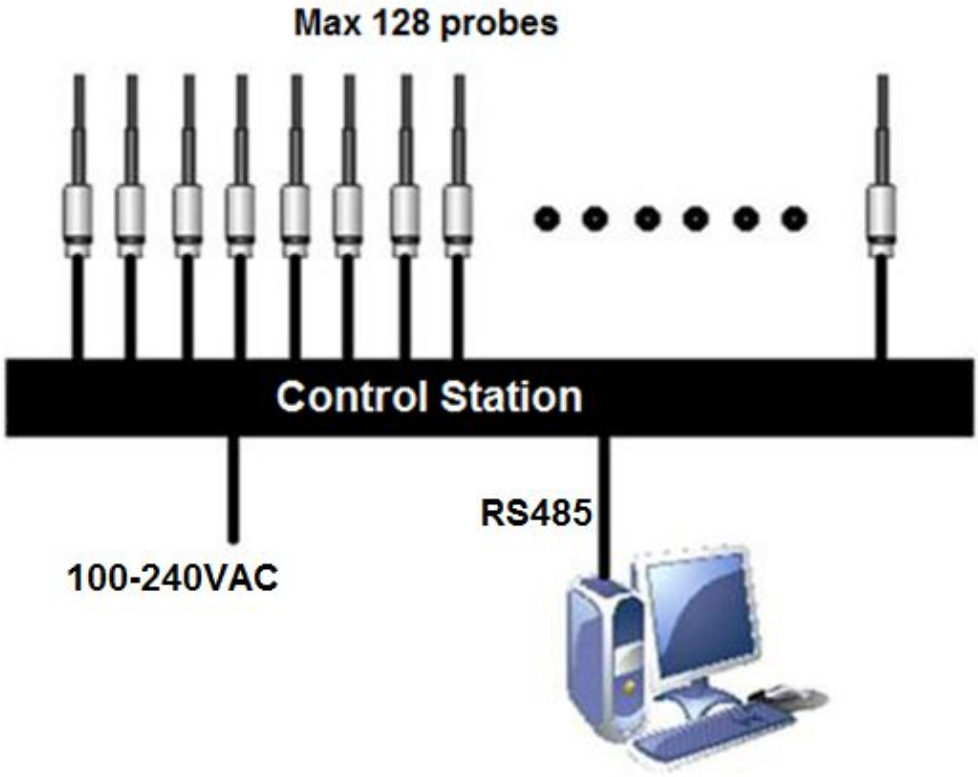
Probe Array of Magnetic Field Detection System GAS3000



Description:

Probe Array of Magnetic Field Detection System GAS3000 is composed of Smart Magnetic Field Transmitter GSP300 Series, digital bus, control station, computer and PC software, which meets the needs of research institutes on the multi-point simultaneous measurement of the magnetic field and product line control. Meanwhile, GAS3000 has the function of fully automated bus digital signal transmission, computer controlled data acquisition speed and processing, and drawing all kinds of curve chart.

The GAS3000 uses the industrial instrumentation common RS485 bus, the small size probe is easy to array, the control station can be connected to 8 to 128 Smart Magnetic Field Transmitters, and data can be collected by bus to import directly to the computer. The speed of synchronization acquisition is up to per 1ms, and the length of communication cable is up to 1000m. It costs less when customers use the GAS3000 for It's not necessary to buy the gaussmeter hosts. Besides, Probe Array of Magnetic Field Detection System GAS3000 can be customized to satisfy customers' special need according to different requirement.

Application:

Probe Array of Magnetic Field Detection System GAS3000 is very suitable for various magnetic field measurements, like all types of spatial variation of the magnetic field to synchronize detection, the magnetic multi-point and multi-face concurrent measurement, and distribution measurement of the impulsed magnetic field and gradient magnetic field. So the GSP3000 can be applied to aerospace, scientific research, industrial inspection, etc.

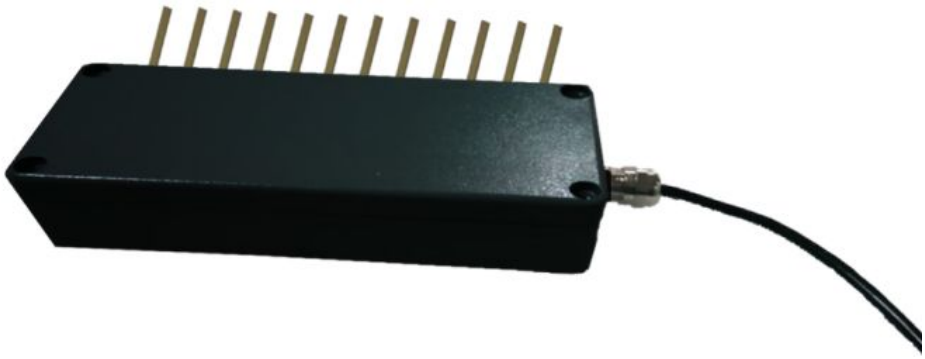
Probe Array of Magnetic Field Detection System GAS3000 has the advantage of high accuracy, high stability, high resolution, miniaturization, digitization, and intelligence. Meanwhile, with the advent of the continuous development of science and technology and new materials and processes, Probe Array of Magnetic Field Detection System GAS3000 will be extended to other applications.

Feature:

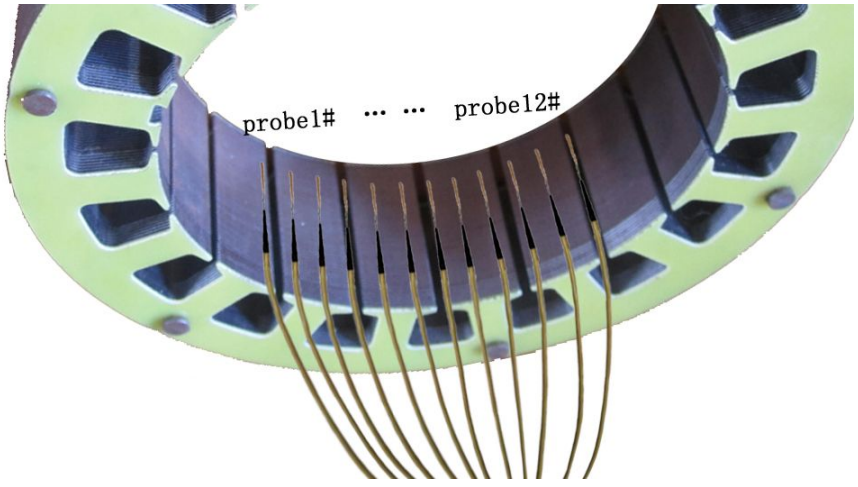
- In GSP3000, Smart Magnetic Field transmitters GSP300 Series' active area is 0.3mm diameter with high resolution
- Small size probe, easy to array(the shortest distance between each probe is 2mm)
- High accuracy, high resolution, high range
- Automatic measurements
- Synchronous data acquisition of all probes and synchronous display measurement data by PC Software
- System standard configuration: 16 probes (maximum 128 probes)
- Standard RS485 connector; the length of communication cable is up to 1000m
- Collected data can be imported directly to the computer without gaussmeter hosts
- Computer-controlled data acquisition speed and processing
- The speed of synchronization acquisition is up to per 1ms

Probe Array：

Probe Array: The shortest distance between each probe is 2mm, The type of array can be a line, square, circle, ring and other irregular shape.



Probes of Spatial distribution: It can be customized many probes, which are fixed or attached on the surface of magnet or some spatial position of magnetic field.



Description Of GAS3000 System's Components

System Components	Description
Computer	
Operation System	Windows XP or WIN7
Configuration Requirements	Conventional mainstream configuration
PC Software	
Function	1, Set the speed of data acquisition, and the speed of synchronization acquisition is up to per 1ms; 2, Automatic synchronization of measurement data collection for each test point and summary display; 3, Data processing, drawing all kinds of curve table, print the test results, etc.
Control Station	
Power	100VAC - 240VAC
The Numbers of Transmitters that can be connected	8,16,32,64, or 128; See in **Description Of Control Station Type Selection**
Data Bus	
RS485	The length of communication cable is up to 1000m
Smart Magnetic Field Transmitter	
Type	Single-axis Magnetic Field Transmitter & Three-Axis Magnetic Field Transmitter See in **Description Of Transmitter Type Selection**
Others	
Working Temperature	-10ºC to +60ºC
Storage Temperature	-20ºC to +80ºC

Description Of Control Station Type Selection:

Control Station GCS300	
GCS300-8	Can be connected to (MAX.) 8 Smart Magnetic Field Transmitters
GCS300-16	Can be connected to (MAX.) 16 Smart Magnetic Field Transmitters
GCS300-32	Can be connected to (MAX.) 32 Smart Magnetic Field Transmitters
GCS300-64	Can be connected to (MAX.) 64 Smart Magnetic Field Transmitters
GCS300-128	Can be connected to (MAX.) 128 Smart Magnetic Field Transmitters

Description Of Transmitter Type Selection

Probe Array of Magnetic Field Detection System GAS3000 can be equipped with not more than 128 Smart Magnetic Field Transmitter GSP300 Series.

➢ **GSP301 1-Axis Magnetic Field Transmitter**

1-Axis Digital Magnetic Transmitter	Range	Accuracy (Based on reading)	Probe Cable Length	High Temp. Probe (up to 160℃)	Temp. compensation (Temperature sensor-contained Probe)	Explosion-proof model
GSP301	3T 10T	1% 0.5% 0.25% *0.05% ("*" : will come soon in future)	2m 5m 10m 20m 30m	BLANK: NO H: YES	BLANK: NO TC: YES	BLANK: NO EX: YES
GSP301	3T	0.5%	2m	H	TC	

Example of 1-Axis Digital Magnetic Transmitter: GSP301-3T-0.5%-2m-H-TC

More details, Please see in [GSP301 1-Axis Magnetic Field Transmitter.pdf]

➢ GSP303 3-Axis Magnetic Field Transmitter

3-Axis Digital Magnetic Transmitter	Range	Accuracy (Based on reading)	Probe Cable Length	Temp. compensation (Temperature sensor-contained 3-Axis Probe)	Explosion-proof model
GSP303	3T	1% 0.5% *0.25% *0.05% ("*" : will come soon in future)	2m 5m 10m 20m	BLANK: NO TC：YES	BLANK: NO EX：YES
GSP303	3T	0.5%	2m	TC	EX

Example of 3-Axis Digital Magnetic Transmitter: GSP303-3T-0.5%-2m-TC-EX

More details, Please see in [GSP303 3-Axis Magnetic Field Transmitter.pdf]

Note:

1, The digital output accuracy is based on reading, and not affected by Range;

2, Magnetic field measurement range, which is proportional to analog output voltage, can be arbitrarily set by software;

3, Each probe's fully calibrated measurement range: ≤±20KG(±2T);

4, All Digital Magnetic Transmitters have 2-channel digital signals (RS485 and USB) outputs and one analog signal (±3V or ±10V) output;

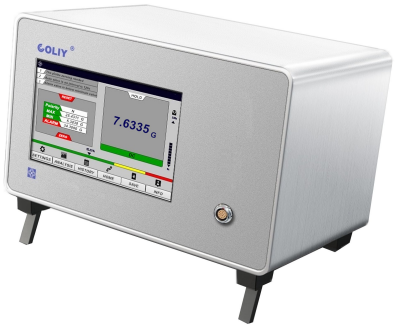
5, GSP303 Transmitter's analog output voltage is in proportion to the magnetic field intensity vector;

6, Temperature sensor contained Probe, has the function of temperature compensation;

7, GSP301 Transmitter's Frequency Response is DC to 20KHz, GSP303 Transmitter's Frequency Response is DC to 800Hz;

8, Probe Array of Magnetic Field Detection System GAS3000 can be customized to satisfy customers' special need according to different requirement.

COLIY- Excellent Solution for Magnetic Field Measurement



Model	Sensor	Type	Axis	Accuracy Based on reading	MAX Range	Best Resolution
Gaussmeters for High Magnetic Field(0-10T)						
G91	Hall	Handheld	1	2.0%	2T	10μT
G92	Hall	Handheld	1	1.0%	10T	10μT
G93 (with probe Y08P150G93)	Hall	Handheld	3	1.0%	3T	1μT
G201	Hall	Desktop	1	0.25%	10T	1μT
G203	Hall	Desktop	3	0.25%	3T	1μT
G401*	Hall	Desktop	1	0.05%	10T	0.1μT
G403*	Hall	Desktop	3	0.05%	3T	0.1μT
G501*	Hall	Desktop	1	0.01%	3T	0.1μT
GSP301	Hall	Digital Transmitter	1	1%, 0.5%, 0.25%,0.05%*	10T	0.1μT
GSP303	Hall	Digital Transmitter	3	1%, 0.5%, 0.25%*,0.05%*	3T	0.1μT
Gaussmeters for Low Magnetic Field(0- 4.5mT)						
GMR50	GMR	Handheld	1	1.0%	4.5mT	10nT
G93 (with probe Y08L150G93)	GMR	Handheld	3	1.0%	1mT	10nT
GF601	Fluxgate	Handheld	1	0.5%	1mT	1nT
GF603	Fluxgate	Handheld	3	0.5%	1mT	1nT
GF803*	Fluxgate	Desktop	3	0.1%	1mT	0.1nT
GFP703	Fluxgate	Digital Transmitter	3	0.5%	1mT	1nT
GFP903*	Fluxgate	Digital Transmitter	3	0.1%	1mT	0.1nT
Magnetic Field Measurement System						
GAS3000	Probe Array of Magnetic Field Detection System: can be used to simultaneously monitor 2- 128 points of magnetic field					
Gaussmeter Calibration System	DC Magnetic Field (Accuracy up to 50ppm)			AC Magnetic Field (Accuracy up to 0.1%)		
	• Low Range: 0.1nT- 0.1mT • Middle Range: 0.1- 100mT • High Range: 1mT- 2T			• Low Range: 0.1μT- 0.1mT • Middle Range: 0.01- 15mT • High Range: 0.1- 200mT		
AC Magnetic Field Sensor						
AMS-2K	Range of 3mT; Frequency response 25Hz- 2kHz					
AMS-1M	Range of 3mT; Frequency response 2kHz- 1MHz					

Note: 1T= 10KG； 1mT= 10G； 1μT= 10mG； 1nT= 10μG； "*": coming soon without notice.