

## GYSE-P-PF Probe

## Profibus DP

Noise  
Cancel



### Profibus DP interface (detachable probe element)



This is the linear profile version of GYSE-P. It is PROFIBUS interface type. Setting parameters (resolution, output direction) through PROFIBUS is possible. GSD file is available on SANTEST web site. Detecting up to 32 pcs of magnets on one probe is possible (Min. proximity distance between 2 magnets is 75mm). When you use a PROFIBUS master simulator of separate sale, it's possible to confirm the data and to set up a PROFIBUS slave from a PC without PROFIBUS master (usually, PLC).

### Specifications

Accuracy	Non-linearity	$\leq \pm 0.025\%FS$ TYP
	Resolution	Min. $1 \mu m$ (set by Profibus Configurator)
	Repeatability	$\leq \pm 0.001\%FS$ (Min. $\pm 3 \mu m$ )
	Temp. drift	$\leq \pm 15ppmFS/^{\circ}C$
Output		Profibus DPV0
Power supply		+24( $\pm 2$ )VDC (70mA)
Sampling freq.(*)	Stroke $\sim 800mm$	: 2000Hz
	$\sim 2200mm$	: 1000Hz
	$\sim 5000mm$	: 500Hz
	5001mm $\sim$	: 250Hz
Environment	Operating temp.	$-20^{\circ}C \sim +75^{\circ}C$
	Storage temp.	$-40^{\circ}C \sim +75^{\circ}C$
	Vibration	15G (20 $\sim$ 100Hz)
	Shock	100G (2msec)
	IP grade	IP65

\*The above mentioned accuracy applies to sensors with an effective stroke of 300mm or more.

\*The specification of stroke less than 300mm is equal that of stroke 300mm.

(\*) In case of multi magnets on one probe, sampling frequency is not standard value.

\*Fixing clamps are supplied.

stroke < 600mm: 2 pcs

600 $\sim$ 1000mm: 3 pcs

1001 $\sim$ 1500mm: 4 pcs

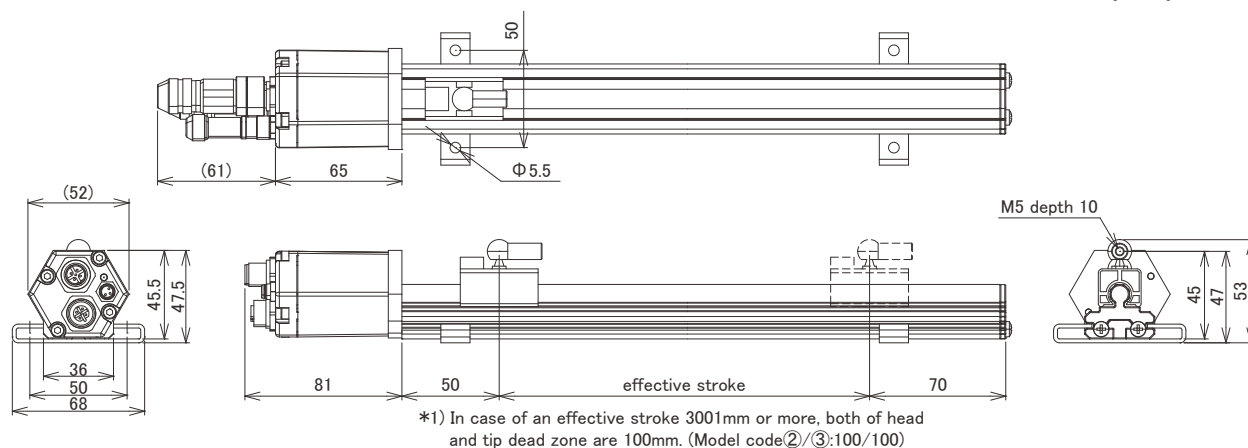
1501 $\sim$ 2000mm: 5 pcs

One clamp is added  
every 500mm

### Dimensions

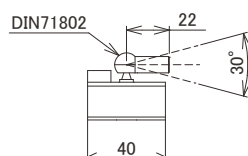
#### Probe

\*materials ; Probe head : Al alloy, body : Al alloy

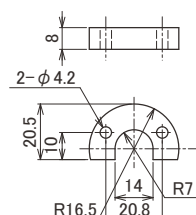


#### magnet

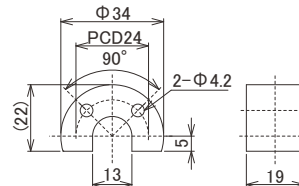
slide magnet  
model: PFU  
materials: polyacetal



floating magnet  
model: No.5N-UK  
materials: MC nylon



floating magnet  
model: No.5PFT-LG  
materials: SS304



## ■ Probe

**GYSE-P-□□□□-□/□-PF-□□-CN-□-□**

① ② ③ ④ ⑤ ⑥ ⑦

### ① Effective stroke

15~7500mm

### ② Head dead zone

S: 50mm (STD)

□: □mm (option) (specified by customers)

• Possible Min. length depends on the selected magnet.

### ③ Tip dead zone

S: 50mm (STD)

□: □mm (option) (specified by customers)

• Possible Min. length depends on the selected magnet.

### ④ Associated magnet

PFU : PFU slide magnet

FE : No.5N-UK

BP : No.5PFT-LG

- Please consult if you select a magnet of other than above.
- This Model code means only specifying associated magnet.
- When you need a magnet, please order separately.

### ⑤ Cable connection

CN: connector

### ⑥ Option

blank: without option

L: linearization option ( $\leq 0.006\%$ FS TYP)

2M: temperature compensation ( $\leq \pm 7\text{ppmFS}/^\circ\text{C}$ )

2ML: temperature compensation + Linearization

### ⑦ Option

F50: with fixing clamps

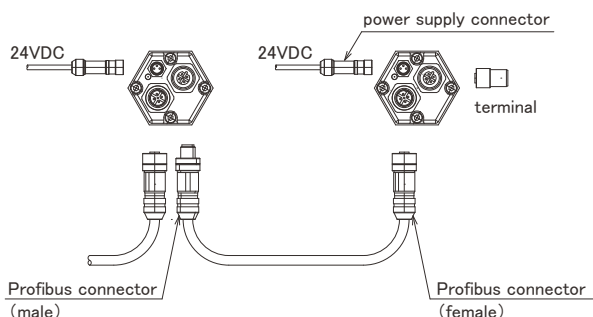
N: without fixing clamps

## ■ Wiring

• Profibus standard cable and robot cable are available.

• In case of connecting several pcs of probe, please refer to the following sketch.

### ■ individual wiring



#### ■ Power supply connector



M8 connector  
Pin : Function  
1 : +24VDC  
3 : 0V  
4 : N.C.

Please ground the drain wire to low impedance earth for the noise decrease

#### ■ Profibus connector (IN, male)



M12 connector(B coding)  
Pin : Function  
1 : N.C.  
2 : RxD/TxD-N(A)  
3 : N.C.  
4 : RxD/TxD-P(B)  
5 : N.C.

#### ■ Profibus connector (OUT, female)



M12 connector(B coding)  
Pin : Function  
1 : VP+5(Bus Termination)  
2 : RxD/TxD-N(A)  
3 : DGnd(Bus Termination)  
4 : RxD/TxD-P(B)  
5 : N.C.

## ■ Connector and Cable Models

• Power supply connector : CN-SEP-M8-□

• Profibus connector (IN,male) : CN-SEP-M12M-○□-△

• Profibus connector (OUT,female) : CN-SEP-M12F-○□

• Terminal : CN-SEP-TR

○: cable length(m),  
S: standard  
R: robot cable

□: cable length(m)  
In case of "0", it means loose connector only

△: blank: loose connector (IN, male)  
M12F: with connector (OUT, female)  
at the other end  
(Need to specify cable length)