

GYSE-P Probe

Profibus DP

Noise
Cancel



Profibus DP interface (detachable probe element)



GYSE-P 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. 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 μm (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(± 2)VDC (70mA)
Sampling freq. (*)	Stroke $\sim 800mm$	: 2000Hz
	$\sim 2200mm$	: 1000Hz
	$\sim 5000mm$	: 500Hz
	5001mm $\sim$	: 250Hz
Environment	Max. Pressure	35MPa (probe rod)
	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	IP67

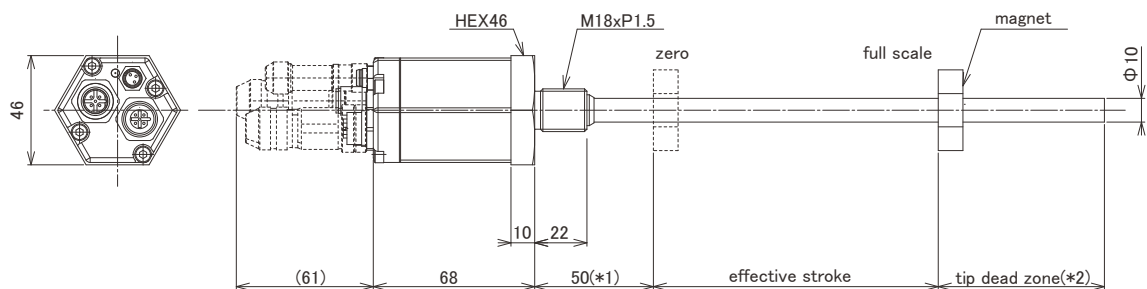
*The above mentioned accuracy applies to sensors with an effective stroke of 300mm or more.

*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.

Dimensions

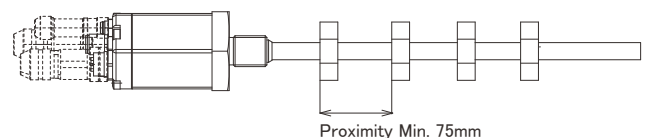
Probe



*1) In case of stroke 3001mm or more, head dead zone is 100mm. (Model code ② : 100)

*2) In case of stroke 3001mm or more, tip dead zone is standard length + 30mm. (Model code ③ : 100/120/130)

- materials ; Probe head : Al alloy, Probe rod : SS304
- magnet : Select one from group GG on page 110
- The tip dead zone length depends on the selected magnet or float.
- When using several magnets on one probe, Min. proximity distance between 2 magnets is 75mm.



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 : Rx D/TxD-N(A)
3 : N.C.
4 : Rx D/TxD-P(B)
5 : N.C.

Profibus connector (OUT, female)



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

■ Probe

GYSE-P- **-** **/** **-** **-** **-** **-** **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 or float.

③ Tip dead zone

S: 70mm/90mm/100mm (STD)

• S (STD length) depends on the selected magnet or float in ⑤.

tip DZ	magnet	float
70mm	M2PN, M0SM, M0LM, M3, M11N, BA	F25N, F28N
90mm		F28S, F30S
100mm	T144, T163	F40S, F42S, F50S

: mm (option) (specified by customers)

• Possible Min. length depends on the selected magnet or float.

④ Thread/Rod diameter

N : M18xP1.5, rod Φ 10 (STD)

M : M24xP1.0, rod Φ 10

M14: M24xP1.0, rod Φ 13.8

⑤ Associated magnet or float

<magnet>

M2PN : No.2PN (STD)

M0SM : No. Φ SPM

M0LM : No. Φ LPM

M3 : No.3

M11N : No.11N

T144 : No.T14-M4

T163 : No.T16-M3

BA : No.2KYN-17-LG

<float>

F28S : Φ 28 SS316L

F30S : Φ 30 SS316L

F40S : Φ 40 SS316(B)

F42S : Φ 43 SS316L

F50S : Φ 50 SS316L

F54S : Φ 54 SS304

F25N : RF-A10 plastic

F28N : RF-A6 plastic

• Please consult if you select a magnet or a float of other than above.

• This Model code means only specifying associated magnet or float.

• When you need a magnet or float, please order separately.

⑥ Cable connection

CN: connector (STD)

⑦ Option

blank: without option

SRT: SRT option

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

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

2ML: temperature compensation + linearization

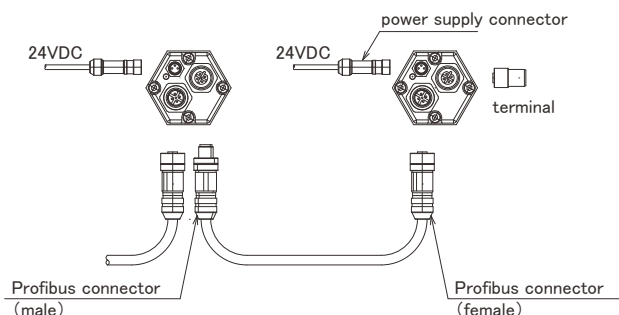
• Please confirm the details of SRT option on page 108.

■ Wiring

• Profibus standard cable and robot cable are available.

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

■ individual wiring



■ 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)